

THE NET PRICE BOOK

Nº 81

Belting
Pulleys
Scales
Pumps



Feed
Grinders
Packing
Tools



ESTABLISHED 1872 — INCORPORATED 1901

THRESHER AND MILL SUPPLIES

B.F. GUMP CO.

Makers of
BAR-NUN
GRINDERS FOR
SCREENINGS,
WHOLE GRAINS, Etc.

50th Year-1872-1922

Sole owners
of LE PAGE PATENT
CORRUGATION FOR
MAKING 96%
CRACKED CORN

431-437 So. Clinton St.

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CHICAGO, ILLINOIS

B. F. GUMP CO. CATALOG No. 81



As far as possible we have quoted net prices, no further discount, thus enabling our customers to learn at a glance just what an article will cost without further consulting us. **OWING TO FREQUENT MARKET CHANGES, ALL PRICES HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE. WE WILL ALWAYS GIVE YOU THE LOWEST PRICES POSSIBLE AT TIME YOUR ORDER IS RECEIVED.** All orders are accepted subject to delay by accidents, strikes or other causes beyond our control. Orders placed with us cannot be countermanded, except with our consent and upon terms that will indemnify us against loss. Stenographical or clerical errors are subject to correction.

WHO WE ARE—OUR RESPONSIBILITY

Having been established in business since 1872 (more than 50 years) as general mill furnishers and rebuilders of flour mill machinery, and enjoying the reputation of square dealing, that we do, among the flour and grist mills of the United States, we cannot do more than refer you to any one or more of these Mills with whom we have, no doubt, had business dealings at some time during our long business career. To those who would like still more evidence of our fairness and responsibility we refer to any commercial agency or the Mercantile Trust and Savings Bank of Chicago, Ill.

OUR TERMS OF PAYMENT

We will extend credit to parties who are financially responsible and if unknown to us and not commercially rated, we require references or cash to accompany order or permission to ship C. O. D. draft with B-L attached, in which case we require a partial payment of 25% of the total amount of the order in advance. When we have obtained a receipt of the goods delivered in good order to the railroad or transportation company, our responsibility ceases and goods are shipped at **BUYERS' RISK** and railroads or transportation companies act as a buyer's agent in handling them. Shipments made by Parcel Post, at request of Customers, are at their risk.

SENDING MONEY

Please send all remittances by bank draft, express or postal money order. Send currency only in registered letters; we cannot be held responsible for currency or coin sent in letters. If you will send express or postal money order, in either case you may deduct the cost of same from your remittance.

HOW SHALL WE SHIP

Always state how you wish goods shipped, whether Freight, Express or Parcel Post (insured or not). When you fail to state preference, we ship cheapest way. If goods wanted by a certain date, please specify. We do our best to make shipment in ample time for goods to reach you at the desired time, but do not hold ourselves responsible for delay in transit. **IF YOU PREFER ANY PARTICULAR RAILROAD OR EXPRESS COMPANY, GIVE THIS INFORMATION ON EVERY ORDER.**

FREIGHT SHIPMENTS

It is generally cheaper to ship goods by freight. Railroads usually make a minimum charge of the 100-lb. rate on shipments of less than that weight. It is advisable that you try to order enough to total 100 lbs., as otherwise you are compelled to pay as much freight on say 25 lbs. as you would on 100 lbs. Our Traffic Department will quote you freight and express rates on any goods listed in our catalog. If there is no freight depot at your point, the charges must be prepaid. When this is the case, include a sufficient amount in your remittance to cover such charges.

TOWNS NOT ON RAILROAD

In case you are not located on a railroad be sure and give us name of railroad town at which you prefer to take delivery. If you wish shipments made in care of stage lines, give name of station at which stage connects with railroad. Full remittance including freight charges, must be made with orders for towns without agent or station.

PARCEL POST SHIPMENTS

Merchandise except liquids, in packages weighing up to 70 lbs., in the first three zones, and up to 50 lbs., in all other zones, and not exceeding 84 inches combined length and girth, can be sent by Parcel Post. If you are not an Account Customer, include postage with your remittance. (Rate of postage can be ascertained from your postmaster or carrier.) We guarantee Parcel Post shipments against breakage or damage, but do not guarantee against theft or loss in the mails. We will, upon request, insure **SAFE ARRIVAL**. This insurance costs 5 cents for orders of \$25 and under, 10 cents for orders between \$25 and \$50 and 25 cents for orders between \$50 and \$100. Any over-remittance of postage promptly refunded.

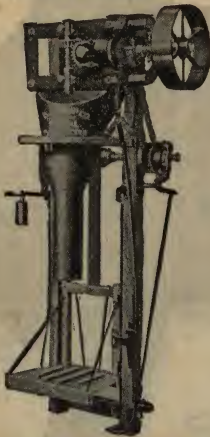
EXPRESS SHIPMENTS

If the express rate is the same to your town as the freight rate, it is advisable to order your shipment sent by express. If you want a fairly heavy shipment in a hurry express is the best.

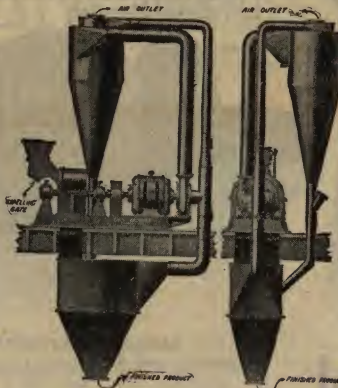
FLOUR AND FEED MILL EQUIPMENT

We make a specialty of furnishing COMPLETE equipment for Flour Mills of 15 to 300 barrels capacity (per 24 hours); also complete feed plants for stock and Poultry Feeds.

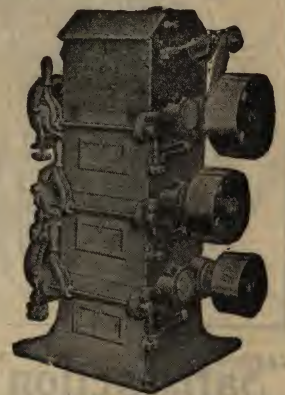
Drawings of mill buildings, with plans and specifications, together with the most modern and complete flow sheets, furnished without cost to PURCHASERS of MACHINERY.



Packers, for Packing, Flour or Feed in Sacks and Barrels.



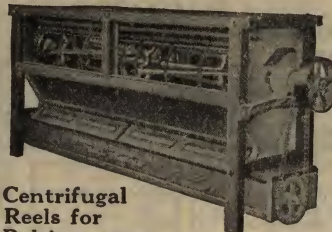
The "Bar-Nun" Grinder, for reducing the whole grains and offals to a fine, soft product, suitable for Dairy Feed and Mash.



Roller Mills for making Graham, Whole Wheat Flour, Cornmeal or Feed.



Exhaust Fans and Blowers



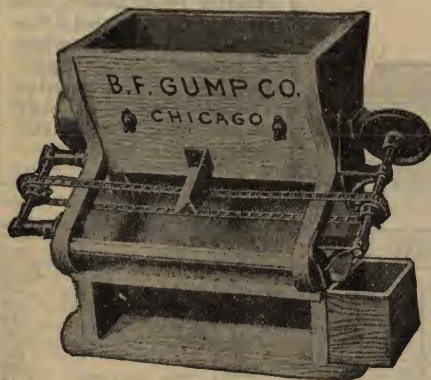
Centrifugal Reels for Bolting any kind of Ground Product.



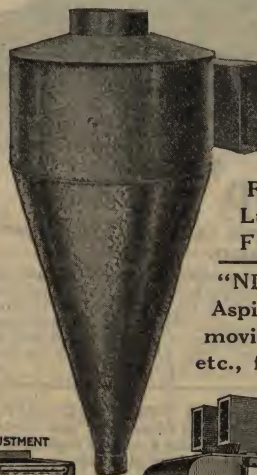
"Le Page" Patent Corrugations for making Cracked Corn for Poultry, or Stock Feed.



Barrel and Sack Elevators.

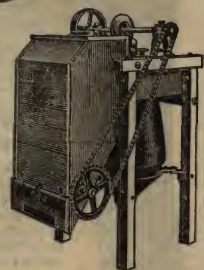


Magnetic Separators, for removing iron particles from a running stream of grain.

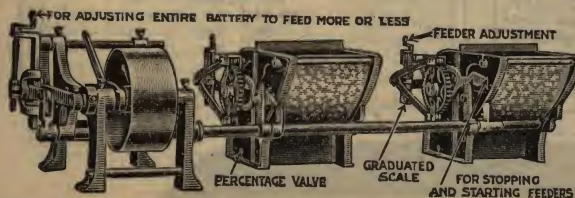


Dust Collectors, For Flour Mills, Lumber Mills, Box Factories, Etc.

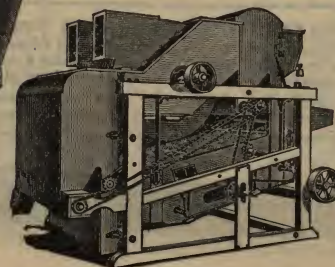
"NIAGARA" Disc Aspirators, for removing chaff, hulls, etc., from grain.



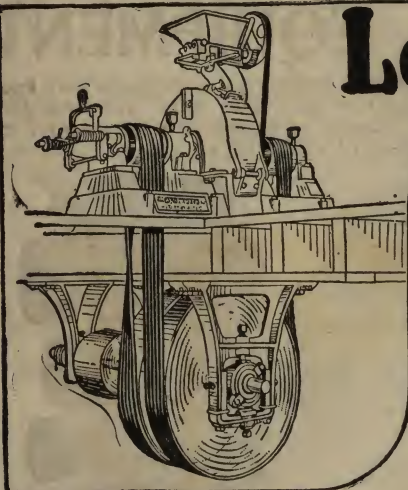
We are Agents or the "Niagara" Line of Grain Cleaning Machinery.



"Draver" Feeders, for feeding a measured stream of almost any product.



Separators and Cleaners for every purpose.



Leather Belting

All of Our Belting is Guaranteed
Against Defective Workman-
ship or Material.



"Satisfaction" Brand

A Medium quality belt suitable for light and medium power transmission.

Do not confuse this brand with standard or cheap agricultural belting.

Will give excellent satisfaction for power transmission where the strain is not too severe, as on agricultural, threshing, milling machinery, etc.

Constructed of the same class of material and character of workmanship as our better grades of belting, the difference being that the quality of the stock used is of a lower cut.

The most improved methods are used in the making of our belting and insure the user maximum service.

We will oil dress and rivet laps without extra charge when desired.

SINGLE "SATISFACTION"
STOCK SIZES LISTED AT NET PRICE
PER FOOT
No. 81A11

Size inch	Price foot	Size inch	Price foot
¾	\$.09	2¾	\$.33
1	.12	3	.36
1¼	.15	3½	.42
1½	.18	4	.48
1¾	.21	4½	.54
2	.24	5	.60
2¼	.27	6	.72
2½	.30		

DOUBLE "SATISFACTION"
No. 81A13

Size inch	Price foot	Size inch	Price foot
1	\$.21	4	\$.85
1½	.32	4½	.95
2	.43	5	1.08
2½	.54	6	1.30
3	.64	7	1.40
3½	.75	8	1.70



No Piece of Leather
used in our belting, no
matter what grade, will
be over 4 feet and 2 in-
ches long. This is what
is termed "Short Lap"
Belting. It eliminates
the use of soft or spongy
stock, using only the
best of the hide.

"Short Lap" Brand

Excellent quality belt suitable for most forms of power transmission.

"Short Lap" Brand Belting is the grade sold by most houses as their best belt. It is a good center stock belt, cut from that portion of the hide right next to that from which the finest belting obtainable is taken. The fibers are dense and strong and for transmission of power in flour mills, elevators and places where a good belt is required it will give excellent service. This belting cannot be furnished wider than 8 in in singles and doubles.

ENDLESS BELTS or belts with PREPARED LAPS furnished promptly at an additional charge of one foot for belts up to 9 inches wide. For belts 9 inches wide and over charge is 4 inches plus the width of the belt.

In ordering state only the exact length around pulleys and whether endless or prepared laps are desired.

SINGLE "SHORT LAP"
No. 81A15

Size inch	Price foot	Size inch	Price foot
¾	\$.10	3	\$.40
1	.13	3½	.46
1¼	.17	4	.57
1½	.20	4½	.65
1¾	.23	5	.72
2	.26	6	.86
2¼	.30	7	1.00
2½	.33	8	1.15
2¾	.37		

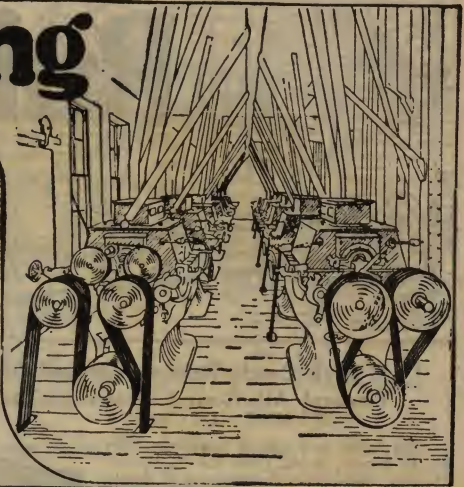
DOUBLE "SHORT LAP"
No. 81A17

Size inch	Price foot	Size inch	Price foot
1	\$.24	4	\$.96
1½	.36	4½	1.08
2	.48	5	1.20
2½	.60	6	1.44
3	.72	7	1.68
3½	.84	8	1.92

Leather Belting

"HONESTY" BRAND

No Better Belt Made Than "Honesty"
Brand Leather Belting



SINGLE "HONESTY"

For Roller Mills, Continuous Belt Drive Attrition Mills, Saw Mills and places where high tension and speed are required. STOCK SIZES LISTED AT NET PRICE PER FOOT.

No. 81A19

Size Inch	Price Foot	Size Inch	Price Foot
1	\$0.14	5	\$0.78
1½	.22	6	.93
2	.29	7	1.09
2½	.36	8	1.24
3	.44	9	1.40
3½	.52	10	1.56
4	.62	12	1.87
4½	.70		

Other Sizes Furnished.
Prices on Application.

Extra Heavy SINGLE "HONESTY"

Especially adapted for Roller Mills and Attrition Mills, etc. STOCK SIZES LISTED AT NET PRICE PER FOOT

No. 81A21

Size Inch	Price Foot
3	\$0.57
3½	.67
4	.76
4½	.86
5	.96
6	1.15
7	1.34
8	1.53
9	1.72

DOUBLE "HONESTY"

For Main and Counter Drives Double Belt Drive Attrition Mills, Saw Mills and Electric Light Plants, etc.

STOCK SIZES LISTED AT NET PRICE PER FOOT.

No. 81A23

Size Inch	Price Foot	Size Inch	Price Foot
2½	\$0.66	9	\$2.37
3	.79	10	2.64
3½	.92	12	3.16
4	1.05	14	3.69
4½	1.18	16	4.22
5	1.32	18	4.75
6	1.58	20	5.28
7	1.84	22	5.80
8	2.11	24	6.33

ALL THE NAME IMPLIES

Our "Honesty" Brand of Leather Belting represents the equal of the highest quality of leather belting that can be made. Cut from the center portion of special selected hides, and put together by skilled workmen making it the strongest and most serviceable belting that can be produced for all forms of medium, heavy or severe power transmission in which a leather belt may be applied.

Almost fifty years of belting experience enables us to know what belting is best suited for various work. We will be glad to help you in selecting the belt best suited for your work, if you state your requirements.

"ROLLER MILL" BRAND

A high grade Dynamo Belt which is specially made for use on Motors, Dynamos, Single Stand, Double Stand, Two pair high and Three Pair high Roller Mills.

Other sizes furnished on application.

ROLLER MILL

STOCK SIZES LISTED AT NET PRICE PER FOOT.

No. 81A25

Size Inch	Price Foot	Size Inch	Price Foot
3	.....\$0.58	7	.....\$1.36
4	......77	8	..... 1.55
4½	......87	10	..... 1.95
5	......97	12	..... 2.24
6	..... 1.17		

Gump's Waterproof Leather Belting

For Use In Damp and Wet Places

Gump's Waterproof Leather Belting is guaranteed not to be affected by coming in contact with water or oils while running on pulleys.

Specially adapted for use in Water Wheel Rooms, Dairies, Creameries, for driving pumps, outdoor use, and all places where an ordinary leather belt could not be used. Other sizes furnished. Write for prices

SINGLE WATERPROOF STOCK SIZES LISTED AT NET PRICE PER FOOT

No. 81A27

Size Inch	Price Foot	Size Inch	Price Foot	Size Inch	Price Foot
1	\$0.17	3½	\$0.60	7	\$1.31
1½	.25	4	.75	8	1.49
2	.35	4½	.84	9	1.68
2½	.42	5	.94	10	1.87
3	.51	6	1.12	12	2.25

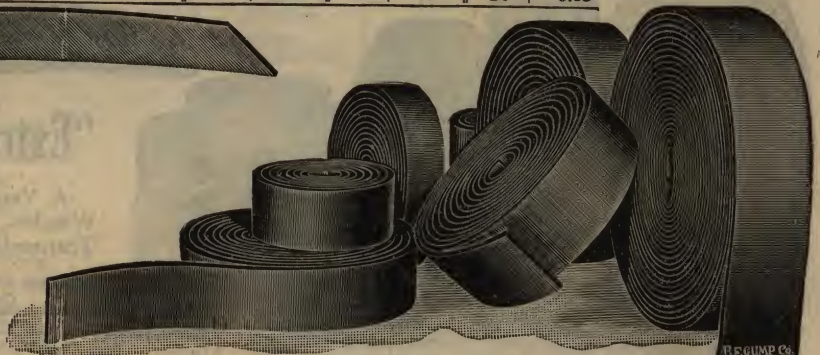
DOUBLE WATERPROOF STOCK SIZES LISTED AT NET PRICE PER FOOT

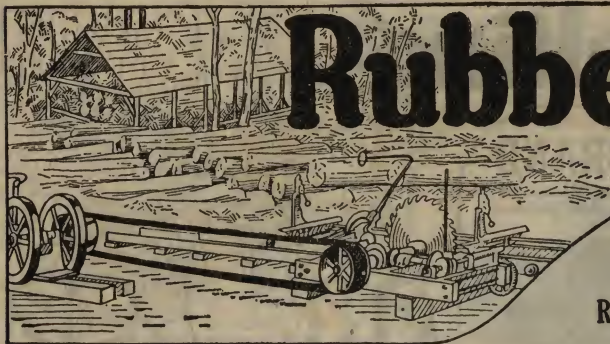
No. 81A29

Size Inch	Price Foot	Size Inch	Price Foot	Size Inch	Price Foot
2½	\$0.79	4½	\$1.41	8	\$2.53
3	.95	5	1.58	9	2.84
3½	1.10	6	1.89	10	3.17
4	1.26	7	2.20	12	3.79

Other Sizes Furnished. Prices on Application

Guaranteed Absolutely Waterproof





Rubber Belting

"Miller's Delight"

Brand

Rubber covered

A High Grade Belting Adapted for General All Round Transmission.

No better belt can be recommended for all around work than the "Miller's Delight" Brand. Constructed of high grade duck, with an excellent friction and is Rubber covered. Guaranteed to give good satisfaction in most places where a Rubber Belt is adapted.

We Recommend These Brands for the Following Uses:

Use—"EXTRA STANDARD" BRAND for Elevator Belting with buckets attached and for medium power transmission.

Use—"MILLER'S DELIGHT" BRAND for general all-around power transmission except those forms specified below.

Use—"HI-SPEED SPECIAL" BRAND for roller mills, motors, blowers on threshing machines, fans, pumps, wood working machinery and on all small pulleys and high speeds.

Use—"HEVI-DUTY" BRAND for extra heavy drives of exceptional tensions or regular size pulleys.

STOCK SIZES AT NET PRICE PER FOOT

Cat. No. 81A45

Width Inches	Net Prices Per Foot			
	3-Ply	4-Ply	5-Ply	6-Ply
2	\$0.14	\$0.16		
2½	.17	.20		
3	.19	.23		
3½	.23	.27		
4	.25	.29		
4½	.27	.32		
5	.30	.36	.45	.54
6	.36	.43	.54	.64
7		.50	.63	.75
8		.54	.68	.81
11		.67	.84	1.01
12		.81	1.01	1.21
14		.94	1.18	1.41

Other sizes furnished. Prices upon application.



"Extra Standard" Brand

A Very Good Belting of Medium Weight. Suitable for All Medium Transmission or for Elevator Belting

STOCK SIZES AT NET PRICES PER FOOT

Cat. No. 81A41

Width Inches	Net Prices Per Foot				
	2-Ply	3-Ply	4-Ply	5-Ply	6-Ply
1	\$0.05	\$0.06			
1¼	.07	.08			
1½	.08	.09	.11		
2	.10	.12	.14		
2½	.13	.14	.17		
3		.17	.20		
3½		.20	.23		
4		.21	.25		
4½		.23	.28		
5		.26	.31	.38	.46
6		.31	.37	.46	.55
7		.37	.43	.54	.65
8		.39	.46	.58	.69
9			.52	.65	.78
10			.58	.72	.86
11			.63	.79	.95
12			.69	.86	1.04
13			.75	.94	1.12
14			.81	1.01	1.21
15			.86	1.08	1.30
16			.92	1.16	1.39

Other sizes furnished. Prices on application.

While this is our lowest quality rubber belt, it is not an inferior grade of belting.

The quality is in every way as good as in any of our other grades, the only difference being in the weight of the material. Constructed of medium weight duck with a good grade of friction. Recommended for medium transmission where the work required is not too severe or for Elevator Belts.

IMPORTANT

In Lacing Rubber Belts, do not cut holes with Punch, which cuts the fabric. Use a pointed instrument (awl or nail) and you will not be troubled with the lace tearing out.

Rubber Belting

"High Speed Special"

Brand

Friction Surface.



"Hevi-Duty" Brand

**Friction Surface
Adapted for Heavy Duty
and Severe Service**

Made of the highest quality of extra heavy specially woven duck, with the best grade of rubber friction between the plies. Adapted for most all forms of power transmission, such as Main Drives, Machine Drives, etc., where a belt of extreme strength and stability is required. No better Rubber Belt Made.

A Belt Made Especially for Use on Small Pulleys and High Speed Machinery.

Particularly adapted for use on woodworking machinery, saw and lumber mills, paper mills, mines, etc.; also on roller mills, blowers, on threshing rigs and silo fillers, motors, fans, or any form of service using high speed and small pulleys.

The body of the belt consists of a multiple of plies of light, strong duck, with a very high quality of rubber friction. Five-ply is equal in tensile strength to single leather belt and seven-ply is equal to light double leather belt.

Stock Sizes Listed at Net Price Per Foot

Cat. No. 81A47

Width, Inches	Net Prices, Per Ft.	
	5-Ply	7-Ply
2	\$0.21	.....
2½	.25	.....
3	.29	.....
4	.37	\$0.52
5	.46	.64
6	.55	.77
8	.70	.97

5 Ply - Single
Leather.

7 Ply - Light
Dbl. Leather

STOCK SIZES LISTED AT NET PRICE
PER FOOT
Cat. No. 81A43

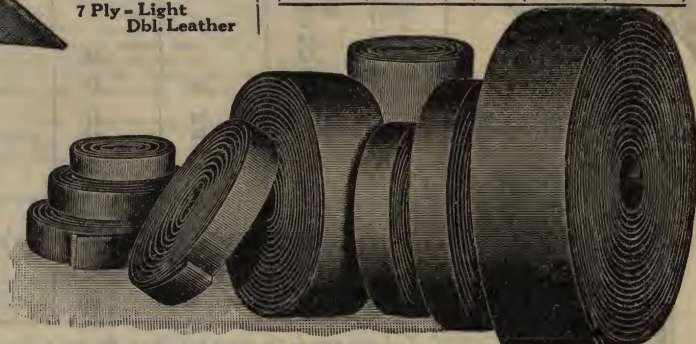
Width Inches	3-Ply	4-Ply	5-Ply	6-Ply
2	\$0.16	\$0.18		
2½	.19	.22		
3	.22	.26		
3½		.30		
4		.33		
5		.41	.51	
6		.49	.61	.73
7		.57		
8		.62	.77	.92
10		.77	.96	1.15
12		.92	1.15	1.38
14			1.34	1.62
16			1.54	1.85

Balata Belting

**High Tensile Strength
Waterproof --- Flexible.
Great Tractive Power**

Balata Belting is the strongest fabric belting made. Tests show a tensile strength of over 10,000 lbs. to the square inch. It gives remarkably long service and does not deteriorate with age. It is an excellent belt for main drives. It is waterproof and suitable for use either outdoor or inside, except where excessive heat conditions exist.

Made of very heavy closely woven 40 oz. duck woven on special looms under high tension which takes out practically all the stretch. The duck is then impregnated with pure balata gum. This can be used in a more closely woven duck than rubber, which is the reason why balata is of greater tensile strength than rubber belting. It is very flexible for its weight and is, therefore well adapted to high speeds and small pulleys. It also has unusual traction. Three-ply balata is equal to light single leather belting; four-ply to heavy single leather; five-ply to light double leather, and six-ply to heavy double leather belt.



STOCK SIZES LISTED AT NET PRICE PER FOOT
Cat. No. 81A49

Width, Inches	PRICE, PER FOOT			
	3-Ply	4-Ply	5-Ply	6-Ply
1	\$0.09			
1½	.11			
1½	.13	.17		
1¾	.15	.20		
2	.17	.23		
2½	.23	.29		
3	.26	.34		
3½	.30	.40		
4	.34	.46		
4½	.38	.51		
5	.43	.57		
6	.51	.68	.71	.86
7		.80	1.00	1.20
8		.91	1.14	1.37
10		1.14	1.43	1.71
12		1.37	1.71	2.05

"Elco" Red Stitched Canvas Belting

FOR BEST RESULTS

Belts should run in the center of the pulleys and should not be held in place by any object that will injure or break the edges.

Do not overload belts.

Do not use belt dressing except that especially made for canvas belts. Elco friction belt paint is especially made for canvas belts. It preserves the elasticity and increases traction power.

FIRST QUALITY—PERFECT CONSTRUCTION

Combines Strength, Durability and Economy

"Elco" red stitched canvas belting represents a real value as it is made of the best materials and workmanship and will give satisfaction on all drives where a canvas stitched belt is adapted. It is made of heavy weight tightly woven cotton duck, folded and lockstitched every **one quarter inch** across the width of the belt. It is waterproofed with a combination of oils and gums which preserves the fabric and renders it pliable under any climatic conditions. The red paint is extremely elastic in texture with ample body to protect the waterproofing compound and give maximum traction.

All Elco belting is thoroughly stretched, cured and pressed and is guaranteed to give perfect satisfaction under all conditions where it is practical to use canvas stitched belting.

Sizes and Net Prices—No. 81A51

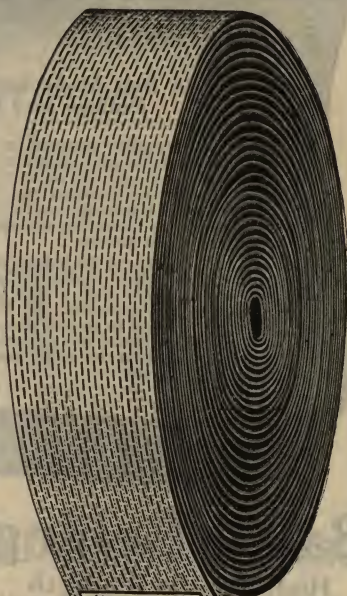
Width inches	Net Price Per Foot			
	4-Ply	5-Ply	6-Ply	8-Ply
1½	\$0.09			
2	.12			
2½	.14			
3	.17		.26	
3½	.20			
4	.22	.28	.33	
4½	.24			
5	.27	.34	.41	
6	.32	.39	.47	
7	.36	.45	.54	
8	.41	.51	.61	.81
9	.45	.56	.67	
10	.49	.61	.73	.97
12	.62	.77	.92	
14	.69	.87	1.04	1.39
16	.79	.99	1.19	1.58
18	.89	1.12	1.34	1.78
20		1.24	1.49	1.98
24			1.78	2.38
30			2.43	3.24

EXTRA CHARGE FOR MAKING BELTS ENDLESS

When canvas belts are to be made endless, an extra charge is made as follows:

All belts 16 in. wide or less, the charge for making endless is equal to **seven feet** of belt size ordered. To obtain charge add seven feet to length in lineal feet around the pulleys and multiply by the price per foot. Belts over 16 in. wide, we make a charge equal to an additional length of belting five times the width of the belt.

NOTE: Always give the distance around the pulleys in lineal feet, and not the distance between centers in ordering endless belts. Where the length ordered is given, the belt will be made to that measurement—endless—which is always taken for complete length on pulleys.



"ELCO"
B.F. GUMP CO.
CHICAGO



"Elco" Red Stitched Canvas Drive Belts

GUARANTEE

Belts should be run in the centre of the pulley and should not be held in place by any object that will injure or break the edges.

Results of overloading, use of injurious Belt Dressings or chafed, frayed or nicked edges do not constitute defects.

Positively no allowance unless claims are made within 30 days from date put in use and belt returned to us freight prepaid.

We will replace any belt proving defective in material or workmanship.

REDUCE BELT SLIPPAGE AND PRODUCE EVEN CYLINDER SPEED

Thoroughly Stretched, Cured and Pressed, Will Run Perfectly True on the Pulleys

Elco endless drive belts will run threshing separators, corn shellers, ensilage cutters, saw mills, feed mills, etc., at a steady even speed which prolongs the life of both the belt and machine. This is because **they are even in thickness, and pliable under all climatic conditions**, giving perfect traction thereby reducing belt slippage to the minimum. This is of greatest importance in the operation of threshing separators where even cylinder speed is essential for perfect separation.

"Elco" belts are made right. They are constructed of heavy weight, tightly woven cotton duck, folded and lock-stitched every **one-quarter of an inch** across the width of the belt, except at the splice where the stitches are **one-eighth inch** apart.

The patented splice is guaranteed not to separate and actually tests stronger than any other part of the belt. By cutting the duck at an angle of 45 degrees with an extension flap in the two centers plies overlapping, when folded the two angles butt together with the extension flap on the outside. The splice has stitches every **one-eighth inch** apart across the width of the belt.

"Elco" belts are water proofed with a combination of oils and gum which preserves the fabric and also makes it pliable in all climates. They are covered with an **elastic paint** which protects the waterproofing and gives maximum traction.

Every belt is thoroughly stretched, cured and pressed.

Stock Sizes and Net Cash Prices

No. 81A53—4-Ply

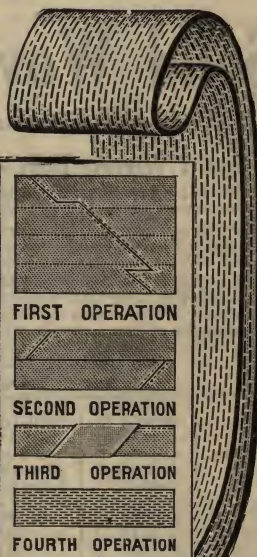
Width	50 ft. Length	75 ft. Length	100 ft. Length	125 ft. Length	150 ft. Length
5-inch	\$13.96	\$20.23	\$26.79	.....	.....
6-inch	16.24	23.65	31.35	\$38.76	.....
7-inch	18.52	27.07	35.62	44.17	\$52.72
8-inch	20.80	30.49	40.18	49.87	59.28
9-inch	.....	.....	.....	.....	65.55

No. 81A55—5-Ply

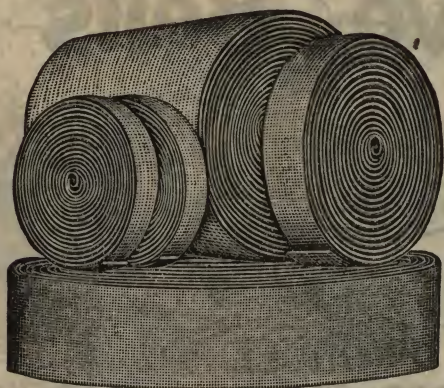
Width	125 ft. Length	150 ft. Length	160 ft. Length
7-inch	\$55.29	\$65.83	.....
8-inch	62.13	74.38	\$78.94
9-inch	.....	81.30	86.92

No. 81A57—6-Ply

Width	150 ft. Length	160 ft. Length
8-inch	\$89.20	\$94.90
9-inch	98.32	104.88



Solid Woven White Cotton Belting



**Solid Woven, With No Plies to Come Apart.
Absolutely Uniform in Strength and Thickness**

**Constructed to Give Maximum
Strength and Service**

Only the highest class of workmanship is used in the manufacture of this Belting. It is woven so that it is absolutely uniform in strength and thickness. This careful workmanship insures a cotton Belting of Highest Quality and Durability. It is constructed of the very best quality of long, staple, hard twisted cotton yarn, especially selected to give service under the most severe strain.

STOCK SIZES LISTED AT NET PRICE PER FOOT

Width, Inches	No. 81A61		Net Prices Per Foot		
	2-Ply	3-Ply	4-Ply	5-Ply	6-Ply
1	\$0.02	\$0.04	\$0.05		
1½	.03	.04	.06		
2	.04	.05	.07		\$0.11
2½	.04	.06	.08		
3	.05	.07	.09		
3½	.05	.08	.10		
4	.06	.09	.11		
4½	.07	.10	.12		
5	.08	.11	.14	\$0.19	.23
5½	.08	.11	.15		
6	.09	.12	.16	.22	.27
6½		.13	.17		
7		.14	.18	.25	.31
8		.16	.21	.29	.36
9		.20	.25	.33	.41
10		.22	.29	.38	.47
11		.24	.31	.41	.51
12	.18	.25	.34	.45	.56
13		.27	.36	.49	.60
14		.29	.39	.52	.65
15		.33	.42	.56	.68
16			.46	.60	.71
18			.52	.67	.80
20			.59	.74	.90
22			.65	.85	1.02
24			.71	.93	1.12
30			.92	1.17	1.47

Solid Woven Cotton Belting is put to a thousand uses in Flour Mills, Cereal Mills, etc. It is used for Elevator Belting, buckets being attached for carrying the product to the machines. In Lumber Mills it is used to carry boards on the level or from one floor to the next. In Box Factories for conveying lumber and boxes. In Printeries, Envelope Mfgs., etc., for conveying paper clippings, paper, printed matter, etc. In Saddlery making, for harness, bands, straps, etc.

Directions for Lacing Cotton Belting

With a tri-square, cut the ends of the belt perfectly true. Do not cut the fabric, but use a large awl in making the holes. There should be in each end of the belt two rows of holes, placed zigzag. The edge of holes should not come closer to the sides of the belt than three-quarters of an inch, and not nearer the end than seven-eighths of an inch.

We do not guarantee this belting for outdoor use or in damp places.

Solid Woven Waterproof Cotton Belting

For Indoor or Outdoor Service.

A Solid Woven Belt --- No Plies to Come Apart

This belting is the same construction as white Cotton Belting, except that it is waterproof for outside as well as indoor use.

It will not become hard or crystalize, retaining its flexibility at all times. Not affected by water, oils, gases or climatic conditions. A product of high quality which will give unqualified service and satisfaction.

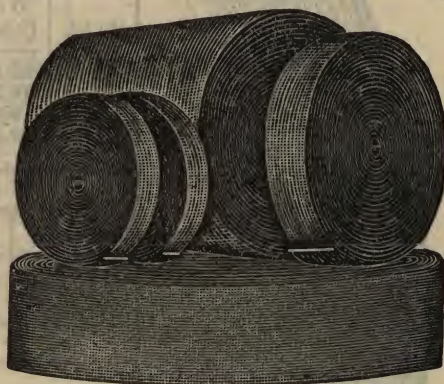
We recommend this belting for all uses in transmitting power, conveying or elevating in flour mills, feed mills, grain elevators, saw mills or for outside use where belting comes in contact with the weather. It does not require belt dressing of any sort. It will also run slack without slipping.

NET PRICES PER FOOT ON STOCK SIZES

No. 81A63

Width,	SINGLE Equal to 4-Ply Net price per ft.	DOUBLE Equal to 6-Ply Net price per ft.	Width	SINGLE Equal to 4-Ply Net price per ft.	DOUBLE Equal to 6-Ply Net price per ft.
2 inch	\$0.12	\$0.18	7 inch	\$0.36	\$0.54
2½ inch	.14	.22	8 inch	.41	.61
3 inch	.17	.26	9 inch	.45	.67
4 inch	.22	.33	10 inch	.49	.73
5 inch	.27	.41	12 inch	.62	.92
6 inch	.32	.47	14 inch	.74	1.10

NOTE:—We furnish with each Waterproof Belt one set of Alligator Steel Belt Lacing FREE!



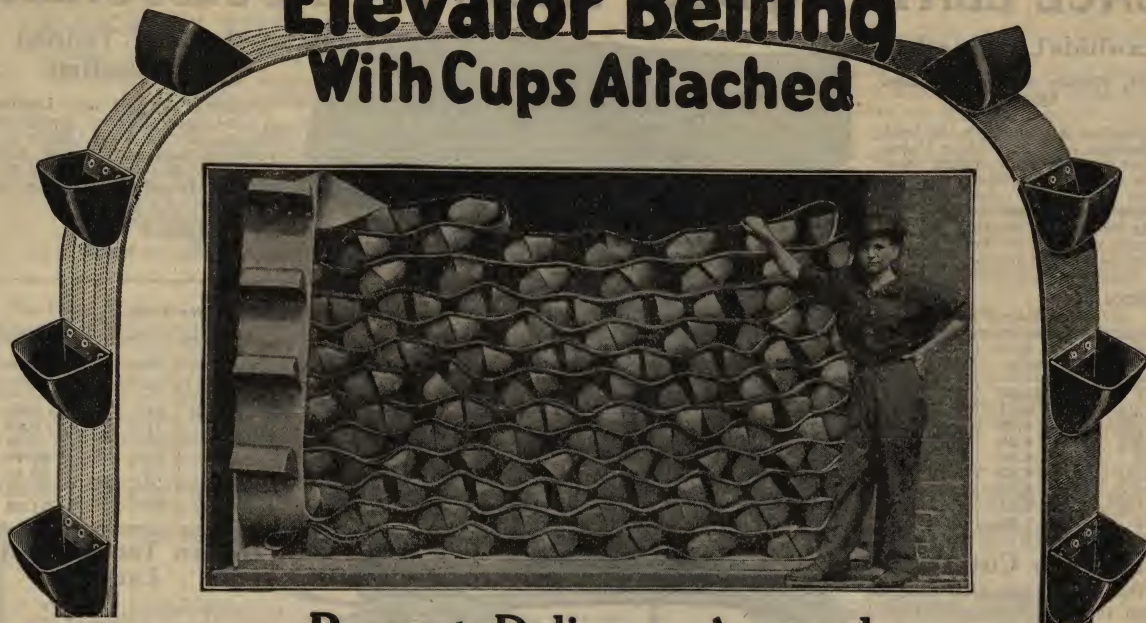
Waterproof Endless Drive Belts

We make Waterproof Solid Woven Cotton Endless Belts for threshers, corn shellers, saw mills, etc.

It is the strongest, toughest, and best drive belt made. No plies to come apart. Absolutely waterproof. Fully guaranteed. All sizes furnished.

PRICES ON APPLICATION.

Elevator Belting With Cups Attached



**Prompt Delivery Assured
on Complete Elevator Belts, using any kind of
Belting or any style cups.**

We can furnish complete elevator belts, using either rubber, cotton or stitched canvas belting with Salem, Steel Grain, Tin Mill, Minneapolis V, Malleable or Superior "D. P." cups attached—any size elevator belt with any kind of belting or any style of cups to suit any requirement you may have.

In the table of sizes and prices quoted below, we use white solid woven cotton belting and "Extra Standard" rubber belting with Salem, (unless otherwise specified) cups attached with reliance elevator bolts spaced 16 inches apart.

**PRICES BELOW ARE FOR LENGTHS OF 100 FEET WITH BUCKETS SPACED 16 INCHES APART.
WILL FURNISH YOU ANY REQUIRED LENGTH AT PROPORTIONATE PRICES.**

SOLID WOVEN WHITE COTTON BELT WITH SALEM BUCKETS ATTACHED 16 INCHES APART.—NET PRICES—81N1650

Length, Feet	Width Belt, Inches	Ply	No. of Salem Buckets	Size Salem Buckets	Net Price	Length, Feet	Width Belt, Inches	Ply	No. of Salem Buckets	Size Salem Buckets	Net Price
100	3½	3	75	3 x3	\$15.40	100	6	4	75	5½x4	\$28.35
100	4	3	75	3½x3	16.15	100	7	4	75	6 x4	30.85
100	4½	3	75	4 x3	19.50	100	8	4	75	7 x4½	38.65
100	5	3	75	4½x3½	20.25	100	9	4	75	8 x5	46.50
100	5½	3	75	5 x4	22.90	100	10	4	75	9 x5	48.50
100	6	3	75	5½x4	25.00	100	11	4	75	10 x5½	54.00
100	7	3	75	6 x4	26.60	100	12	4	75	11 x6	62.95
100	8	3	75	7 x4½	33.90	100	13	5	75	11 x6	73.25
100	8	4	75	4½x3½	23.00	100	13	4	75	12 x6	70.00
100	5½	4	75	5 x4	25.90	100	13	5	75	12 x6	81.00

EXTRA STANDARD RUBBER BELTS WITH SALEM BUCKETS ATTACHED 16 INCHES APART.—NET PRICES—81N1652

Length, Feet	Width Belt, Inches	Ply	No. of Salem Buckets	Size Salem Buckets	Net Price Salem	Net Price Steel Grain	Length, Feet	Width Belt, Inches	Ply	No. of Salem Buckets	Size Salem Buckets	Net Price Salem	Net Price Steel Grain
100	5	4	75	4½x3½	\$39.00	\$....	100	14	4	75	13x7	\$140.00	\$151.00
100	6	4	75	5½x4	47.90	57.25	100	14	5	75	13x7	165.00	176.00
100	7	4	75	6 x4	53.80	63.65	100	15	4	75	14x6	135.00	142.00
100	8	4	75	7 x4½	62.00	73.20	100	15	4	75	14x7	141.00	161.00
100	9	4	75	8 x5	71.25	81.65	100	15	5	75	14x6	156.00	163.00
100	10	4	75	9 x5	77.50	88.65	100	15	5	75	14x7	163.00	178.00
100	10	5	75	9 x5	80.50	91.65	100	16	5	75	15x7	185.00	193.00
100	11	4	75	10 x5½	87.30	103.00	100	17	5	75	16x6	175.00	205.00
100	11	5	75	10 x5½	101.50	117.30	100	17	5	75	18x7	195.00	203.00
100	12	4	75	11 x6	99.00	112.70	100	18	5	75	16x7	203.00	211.00
100	12	5	75	11 x6	115.00	128.70	100	20	5	75	18x7	237.50	254.00
100	13	4	75	12 x6	109.55	122.00	100	22	4	75	20x6	204.50	230.50
100	13	5	75	12 x6	127.25	139.75	100	22	5	75	20x6	240.00	270.00

*—Fitted with Steel Corn Buckets.

†—Steel Ear Corn Buckets.

NOTE—Can attach buckets 12 inches apart at a small additional charge.

LACE LEATHER, BELT LACING AND ACCESSORIES

Rawhide Lace Leather

Soft, Pliable and of The Best Quality

Our laces made from the best selection of Packer Steer Hides. After the process of making them into Rawhide is finished, they are then graded into what is called "first and second selections." Our many years of experience has taught us that the "first selection" is the most satisfactory to our customers and, while the price is only a few cents higher, the difference in quality is considerable.

81B200

Note—We do not sell less than one side.

Sides Sq. ft.	Net price, each	Sides Sq. ft.	Net price, each	Sides Sq. ft.	Net price, each
12	\$6.00	14½	\$7.13	16½	\$8.25
12½	6.13	14½	7.25	16½	8.38
12½	6.25	14½	7.38	17	8.50
12½	6.38	15	7.50	17½	8.75
13	6.50	15½	7.63	18	9.00
13½	6.63	15½	7.75	18½	9.25
13½	6.75	15½	7.88	19	9.50
13½	6.88	16	8.00	19½	9.75
14	7.00	16½	8.13	20	10.00

Rawhide Cut Lace

Gump's Rawhide Cut Lace is from the best selection of hides. All lace is hand cut and we guarantee all lace to be perfect in every way.

81B206

¼ inch, per 100 ft.	\$1.00
⅜ inch, per 100 ft.	1.25
½ inch, per 100 ft.	1.50
¾ inch, per 100 ft.	2.25
1 inch, per 100 ft.	2.65
1½ inch, per 100 ft.	3.00
50 ft. bdl. ½ price of 100 ft. bdl.	



"Indian" Tanned Lace Leather

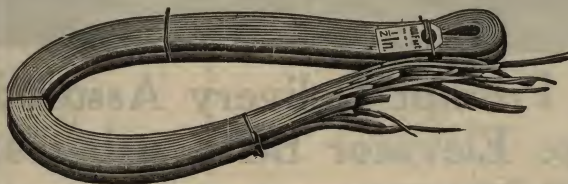
"Indian" Tanned Lace Leather is hand-made and very durable in wet, hot or cold places. There is a growing demand for a good "Tanned" lace, and we offer the "Indian" Brand as the best on the market.

Note—We do not sell less than one side.

81B202

In Sides, 10 to 20 Square Feet

Sides Sq. ft.	Net price, each	Sides Sq. ft.	Net price, each	Sides Sq. ft.	Net price, each
10	\$5.50	13½	\$7.43	17	\$9.35
10½	5.78	14	7.70	17½	9.63
11	6.05	14½	7.98	18	9.90
11½	6.33	15	8.25	18½	10.18
12	6.60	15½	8.53	19	10.45
12½	6.88	16	8.80	19½	10.73
13	7.15	16½	9.08	20	11.00



Assorted Rawhide Cut Lace

For the convenience of those who do not wish to buy 50 feet of each size needed, we are putting up a special assortment, including 25 feet, each, ¼, ⅜, ½ and ¾ inch.

81B208 Price, 100 ft. assorted Lace Leather.....\$1.65

Indian Tanned Cut Lace

Indian Tanned Cut Lace is all hand cut. It is perfectly true and of the same width throughout. Very durable in wet, cold or hot places. No better lace can be made.

81B210

¼ inch, per 100 ft.	\$1.15
⅜ inch, per 100 ft.	1.30
½ inch, per 100 ft.	1.70
¾ inch, per 100 ft.	2.50
1 inch, per 100 ft.	2.95
1½ inch, per 100 ft.	3.40
50 ft. bdl. ½ price of 1000 ft. bdl.	

Chrome Side and Cut Lace

81B209

HAND CUT SPECIAL SELECTED

¼ inch, per 100 ft.	\$0.85
⅜ inch, per 100 ft.	1.00
½ inch, per 100 ft.	1.25
¾ inch, per 100 ft.	1.75
1 inch, per 100 ft.	2.00
1½ inch, per 100 ft.	2.50

Bluish Colored Lace—Reasonable In Price—
Great Tensile Strength.

Made from special select chrome tanned hides. This special tannage strengthens the fibres of the hide and makes a lace of great demand for all purposes.

Assorted Cut Lace.

Put up in bundles of assorted sizes same as rawhide cut.

No. 81B213—Price, per 100 ft. bundle.....\$1.25

81B211 SPECIAL SELECTED SIDELACE

9 sq. ft. Sides, each	\$2.34
9½ sq. ft. Sides, each	2.47
10 sq. ft. Sides, each	2.60
10½ sq. ft. Sides, each	2.73
11 sq. ft. Sides, each	2.86
11½ sq. ft. Sides, each	2.99
12 sq. ft. Sides, each	3.12
12½ sq. ft. Sides, each	3.25
13 sq. ft. Sides, each	3.38



"ELCO" LEATHER BELT CEMENT

Has Greater Adhesive Qualities

Is made from the Finest Gelatines procurable, and with a twelve-hour cook is so condensed that it takes Twice the quantity of Water to Reduce it to proper consistency for use, making One Pound Go as Far as Two Pounds of Ordinary Belt Glue.

All other cements make a hard, cracky joint, stiff and hard to bend at first. The "ELCO" is a new departure in Belt Cements on account of its Greater Adhesive Qualities.

It takes a Less Quantity to make the joint, which after being made is as soft and pliable as any part of the belt.

Full directions for use on every package.

81B218 Price, in 1-pound cans.....Per can, \$0.90

Solid Round Leather Belt



Made of the best solid leather. Pure oak tanned.

81B212

NET PRICE PER RUNNING FOOT

¼ inch	\$0.02
⅜ inch	.03
½ inch	.05
¾ inch	.08
1 inch	.12
1½ inch	.30
2 inch	.40
2½ inch	.50

Steel Belt Couplings



For Round Belts or Cords

81B214 NET PRICES

Diam. Inch	Price, Each	Diam. Inch	Price, Each
½	\$0.20	¾	\$0.20
⅝	.15	1	.25
¾	.15	1½	.30
1	.15	2	.45

Elco Wire Belt Lacing

Specially Made by a secret process which makes it especially adapted to all kinds of belting requirements. All boxes contain 50 lineal feet of wire. Made in five sizes.



81B216

No. 00, for small belts, per box	\$0.25
No. 0, for 2 to 3½ in. belts	.30
No. 1, for 4 to 6 in. belts	.35
No. 2, for 6 to 16 in. belts	.40
No. 3, for over 16 in. belts	.45

BELT HOOKS OF ALL KINDS

ALLIGATOR STEEL BELT LACING

Apply with a hammer, no other tools required.

Especially adapted for Rubber, Cotton and Canvas Stitched Belting.



81B300 SIZES AND NET PRICES.

Ns. 15. For belts $\frac{1}{8}$ to $\frac{3}{4}$ inches thick. Box contains 64 inches of lacing in 8-inch lengths.\$1.40

No. 25. For 3-ply and Single Leather Belts $\frac{1}{8}$ to $\frac{7}{32}$ inches thick. Box contains 48 inches of Lacing in 8-inch lengths....\$1.35

No. 27. For 4-ply Rubber and Cotton Belts $\frac{1}{4}$ to $\frac{9}{32}$ inches thick. Box contains 96 inches of lacing in 12-inch lengths.. 2.90

A separable lacing, hinging on a rawhide or sectional steel rocker pin.

The flexible joint insures quick contact with the pulley, whether the belt is run with either or both sides in service, and as the lacing engages both sides of the belt alike, the strain is thrown in a direct line of the pull, making a joint which is easy on the belt, and where applied according to directions will stand any strain put on a belt under any conditions of service.

With rubber or cotton belting this lace overcomes the tendency to fray at the ends, as the members of the lace clamp the stubs so as to protect them.

Will work perfectly in contact with an idler.

No. 35. For 5 to 6-ply Rubber and Cotton Belts and Double Leather Belts $\frac{9}{32}$ to $\frac{1}{4}$ inches thick. Box contains 32 inches of Lacing in 8-inch lengths. 1.25

No. 37. Same as No. 35 size, but box contains 48 inches of Lacing in 12-inch lengths. 1.85

No. 45. For 6-ply Rubber and 6 to 8-ply Cotton Belts, Heavy Double Leather Belts. Box contains 48 inches of Lacing in 12-inch lengths. 2.45
Extra Pins, per dozen.50

The Only Zig-Zag Hook with Solid Back---Drives Better---Holds Longer
---Costs Less. For All Kinds of Belts Over All Size Pulleys.

OUR GUARANTEE

We will put the STAG in the same belt, running under the same conditions, with any other hook or lace and guarantee it to run longer, and with less expense; that it will run over a smaller pulley than any other hook, and that it can be applied in one-fourth the time it takes to lace a belt with leather or wire lacing.

DIRECTIONS FOR USING STAG STEEL BELT HOOKS.

Cut No. 1. Cut both ends of belt square and place on piece of soft wood.

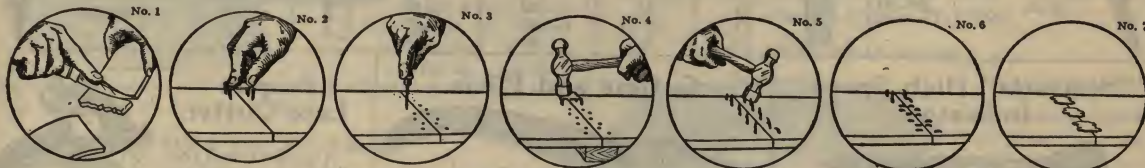
Cuts Nos. 2 and 3. In applying hooks to very hard belting, especially when using larger size hooks in thick new belts, place hooks on and tap lightly to mark where teeth will enter belt, then make holes with a pointed awl, replace hooks, drive through and clinch as directed.

Cut No. 4. Never strike the hooks a hard blow in the center of main body, but after they are fairly started in the belt, direct the blows over the points, first one side and then the other. This keeps hook in its original shape, thereby keeping its maximum strength and will insure a close joint.

Cuts Nos. 5 and 6. After having driven points of hooks through, turn belt over and bend extreme end of points a trifle to give it better holding qualities. Always bend points towards joint. Hammer down firmly (do not smash.) Bend only one point at a time. Never try to drive the hooks through a piece of iron or pulley, but use a soft piece of wood, and in clinching bend one point at a time, **always toward joint.**

Cut No. 7. Always run clinched side against pulley.

NOTE:—Use the hooks alternately, as shown in cut.



81B306 SIZES AND NET PRICES, PER BOX.

No. 00. For Light Leather, Rubber or Cotton Belts. $\frac{1}{8}$ to $\frac{5}{32}$ inch thick, $\frac{1}{2}$ to 3 inches wide. Packed 200 in a box...\$0.50

No. 0. For Light Leather, Rubber or Cotton Belts. $\frac{1}{8}$ to $\frac{1}{4}$ inch thick, $\frac{1}{2}$ to 3 inches wide. Packed 200 in a box.60

No. 1. For Single Leather, 3-ply Rubber or Cotton Belts, 1 to 5 inches wide. Packed 100 in a box.35

No. 2. For Heavy Single or Light Double Leather, 4-ply Rubber or Cotton Belts, 1 to 8 inches wide. Packed 100 in a box.60

No. 3. For Double Leather, 4 to 6-ply Rubber or Cotton

Belts, 1 to 12 inches wide. Packed 100 in a box. 1.00

No. 4. For Heavy Double Leather, 6 to 8-ply Rubber or Cotton Belts, 1 inch wide and up. Packed 100 in a box. 1.50

No. 5. For Extra Heavy Double Leather, 6 to 8-ply Rubber or Cotton Belts, $1\frac{1}{2}$ inch wide and up. Packed 100 in a box. 2.40

No. 6. For Extra Heavy Double Leather, Rubber or Cotton Belts, from $\frac{1}{2}$ to $\frac{1}{4}$ inch thick, $1\frac{1}{2}$ inch wide and up. Packed 100 in a box. 3.30

No. 7. For Belts $\frac{3}{8}$ to $\frac{1}{2}$ inch thick and Extra Heavy Conveyor Belts, 2 inches wide and up. Packed 100 in a box. 5.00

OVAL POINTED BELT HOOK

81B302

No.	Length	Number in Box	Price Net, Per Box
15	22/32 inch	250	\$0.25
14	23/32 inch	250	.30
13	3/4 inch	500	.65
12	25/32 inch	250	.35
11	29/32 inch	500	.75
10	1 1/32 inch	250	.45
9	1 1/8 inch	250	.50
8	1 1/4 inch	250	.65
7	1 18/32 inch	250	.75
6	1 3/4 inch	250	1.00
5	2 1/32 inch	250	1.90
4	2 10/32 inch	100	.70

81B304 LX STEEL BELT HOOKS

No. 0 For single leather.

No. 00 For double leather.

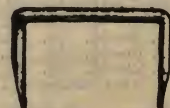
No. 1 For all belts less than 4-ply.

No. 2 From 4 to 6-ply.

No. 3 From 6 to 10-ply.

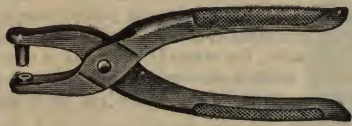
Price net, per box of 200, any size.\$0.35

We Carry A Full Line of Belting---Leather, Rubber, Balata, Cotton, Stitched Canvas. See Pages 2 to 13 Inclusive.



Tools You Will Appreciate For Repairing Jobs

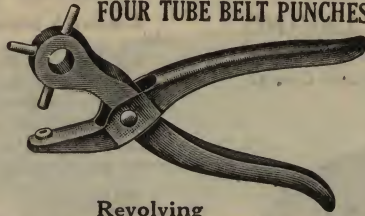
Single Tube Belt Punches



For punching holes in belting for wire lacing.

81B230 Net price, each\$0.50

FOUR TUBE BELT PUNCHES



Revolving

Will punch four different size holes.

81B232 Net price, each\$1.00

Six Tube Belt Punches



Revolving

Will punch six different size holes.

81B234 Net price, each\$1.35

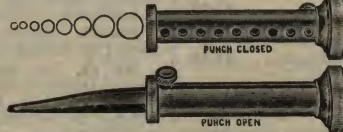
Belt Punch and Splicing Tool



Cuts 1/4-inch holes for lacing. Will catch lace and pull it through when lace only projects 1/4 to 1/2-inch through belt hole. A time and teeth saver.

81B236 Net price, each\$0.55

"ROGERS" ADJUSTABLE BELT PUNCH



Telescopes. Can be carried in pocket. Finely tempered half round steel blade. Adjustable to cut holes 1/6 to 3/8 inch diameter by moving button at bottom. Is suitable for any kind of belt.

81B238 Net price, each\$0.60

Splicing Tool and Lace Cutter



Same tool as belt punch and splicing tool with lace cutter attached. Will cut lace to size, punch holes and pull lace through.

81B240 Net price, each\$1.00

Belt Groover



This tool is very handy in lacing belts with wire lacing. It grooves a place for the lacing so that it is smooth and even at the joint.

81B242 Net price, each\$0.50

Genuine "Osborne" Round and Oval Belt Punches

THE BEST PUNCH MADE

Will outlast three ordinary punches.

No.	Size hole inches	81B244 Price, each round hole	81B246 Price, each oval hole
3	7/64	\$0.30	\$0.45
4	1/4	.30	.45
5	9/64	.30	.45
6	5/32	.30	.45
7	3/8	.35	.55
8	7/32	.35	.55
9	1/2	.35	.55
10	9/32	.35	.55
11	11/32	.40	.65
12	3/4	.40	.65
13	13/32	.55	.75
15	1/2	.65	.75

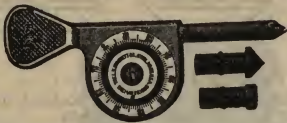
Lathrop Patent Belt Awl

The Lathrop Patent Belt Awl is provided with three holes for different size lace. It will catch the lace and pull it through when only a very small part of the end shows.

81B248 Net price, each\$0.50



"Starretts" High Speed Indicator

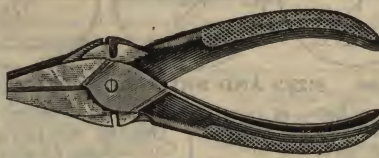


Will run at highest speed without heating. Working parts encased. Dial plate has two rows of figures.

81B250 Net price (in pasteboard box), each\$1.25

81B252 Net price (in leatherette case), each 2.00

Cutters and Pliers



For lacing belts with wire. Actual size 5 1/2 inches.

81B254 Net price, each\$0.60

Empire Lace Cutter



A perfect tool for cutting rawhide lace leather. Adjustable so as to cut any width of lacing from 3/16 to 3/4 inch wide. The cost of this cutter is easily saved in cutting one side of lace leather. Each cutter

packed in a separate box.

81B256 Net price, each\$0.45

Copper Rivets and Burrs

One Size Only, in One-Pound Boxes.

No.	7-1/2	5/8	3/4	7/8	1	1 1/4	1 1/2	Per lb.
81B220								
No. 7-1/2	5/8	3/4	7/8	1	1 1/4	1 1/2		\$0.50
No. 8-3/8	7/8	1	1 1/4	1 1/2				.55
No. 9-1/2	1	1 1/4	1 1/2					.60
No. 10-3/4	1 1/4	1 1/2						.65
No. 12-1/2	1 1/2							.65

One number and size only in each 1-lb. box.



81B222 RIVET SET AND HEADER
For Nos. 7 to 10 Rivets.....Each \$0.75
For Nos. 11 to 15 Rivets.....Each .50

Empire Washer Cutters



Cuts Washers up to 6 1/2 inches

81B224 Price each, net\$1.25

Our No. 80 Catalog contains complete machinery and supplies for flour, feed mills and elevators. MAILED on Request.

"ELCO" BELT DRESSING

The substance of our "Elco" Belt Dressing is an Animal Fat (Wool Fat), the grease that is extracted from sheep's

wool before woven into cloth.

We use only the imported, on account of its purity, being free from alkalis and acids. Tanners use the same for stuffing or softening a hide after tanning, it being the most desirable Pure Animal Grease obtainable. It cannot injure the belt.

The "Elco" is the natural color of the wool fat, Brown, and is guaranteed pure. **Stops the Slipping. Slipping Destroys More Belts than Any Other Cause.**

In 1-pound sticks, always ready for immediate use. Held to moving belt, applies just enough. Contains no rosin or mineral grease. Superior to all others.

81B354

Net price, per 1-pound stick, each.....\$0.35

Net price, per dozen 1-pound sticks.....\$3.50

"VISCOL" LIQUID BELT DRESSING

Preserves your belt, increases its friction 50 per cent, allowing a much looser belt avoiding unnecessary friction caused by high tension of belts; makes belt impervious to water, fumes and gases. Does not make your belt soggy, as do many other belt dressings.

81B356

Net price, 1½ pint can, each.....\$0.95

Net price, 4 pint can, each.....1.75

**GUMP'S LEATHER BELT DRESSING**

Made of pure animal and fish oils, which will add years of life to your new belts and rejuvenate the old ones. This dressing is not specially adapted for keeping your belts from slipping, as it is for lubricating and adding life to the fibres of leather of which your belts consist thereby increasing elasticity and traction power. In 1-gallon cans only.

81B360—Net Price, per 1-gallon can.....\$2.75

COUNTER OR MILL BRUSHES

hard wood handle. Bristles are three inches long. Length from base of handle to tip or brush, 14 inches.

This is an extra high grade brush made of mixed bristles, with a highly polished

SIZES AND NET PRICES

81E538

Size 7. Mill Special, Each.....\$1.50

Size 7. Mill Special, per Dozen.....\$15.00

GUMP'S ALL CORN BROOMS

Are made of selected Broom Corn, nicely finished, with machine turned hardwood handles. Sewed with heavy waterproof waxed twine, and bound with stout steel band.



81E456—Weighing 32 lbs. per dozen. For Office and light and medium sweeping.

Price each.....\$0.70
Per dozen.....7.00

81E457—Weighing 36 lbs. per dozen. For Mills and Elevators and for medium and heavy sweeping.

Price each, net.....\$0.80
Price per dozen.....8.00

81E458—Weighing 40 lbs. per dozen. For Warehouses, platforms and for heavy sweeping.

Price each, net.....\$0.90
Price per dozen.....9.00

"BULL DOG" PULLEY COVERING CEMENT

Cover Your Own Pulleys, Iron or Wood

BULLDOG BELT COVERING CEMENT WILL HOLD TO EITHER IRON OR WOOD PULLEYS, LARGE OR SMALL.

Full printed directions on every can. Use your own canvas or we can supply the canvas if desired at small cost. Will keep for years if can is kept tightly closed. Regular size cans 1½ pounds, will cover 10 square feet. We recommend No. 6 duck or canvas for general use.



81B362—Price, net, per can.....\$2.00

81B364—No. 6 Canvas Ducking, per square foot.... .20

Minimum charge for Canvas Ducking......50

LEATHER PULLEY COVERING

Made of high grade leather, even in thickness, any length or width.

81B366—Price per square foot, net.....\$1.25

We can cover your New Pulleys when ordered with thin high grade Leather, and guarantee the covering not to come loose, without punching rivet holes in them, thus weakening the pulley.

Net, per square foot.....\$2.00

"ELCO" FRICTION BELT PAINT
For Red Stitched Canvas Belts

An elastic paint which preserves the life of the belt, waterproofs it and increases its traction. A belt painted when stored away will retain its life and pliability and will not deteriorate. Apply on both sides with a common paint brush after thoroughly cleaning belt. Allow to dry before using. Put up in gallon cans.

81B368—Price per 1-gallon can net.....\$2.00

**FLOOR BRUSHES**

Polished Hardwood Blocks, Threaded Handle Holes, with Polished Handles.

With Mixed Bristles



"Gump's Special"

Our "Gump's Special" Floor Brush is made in the same manner as our "Mill Special" Counter

Brush, entirely of mixed bristles 4 inches long, with polished hardwood block and handle. We guarantee this brush to be as good or better than any brush made for the purpose, and will replace them if found otherwise.

SIZES AND NET PRICES

81E540
Size 108. "Gump's Special," 14-inch block, each.....\$2.50
Size 1'0. "Gump's Special," 16-inch block, each.....2.85
Size 1'2. "Gump's Special," 18-inch block, each.....3.00

GUMP'S RATTAN MIXED BROOMS

Made of selected Broom Corn mixed with Rattan Reeds, making the Broom more efficient for sweeping heavy rubbish, etc. Sewed and Bound same as our All Corn Brooms.

81E459—Weighing 36 lbs. per dozen. Price each, net.....\$0.85
Price per dozen.....8.50

81E460—Weighing 40 lbs. per dozen. Price each, net.....\$0.95
Price per dozen.....9.50

OUR SPECIAL SAMPLE OFFER

To introduce to our customers the different weights and kinds of Brooms listed—we furnish one dozen brooms, assorted as follows: (4 No. 456, 2 No. 457, 2 No. 458, 2 No. 459, 2 No. 460) for net...\$8.00

WOOD AND STEEL SPLIT PULLEYS

Wood Split Pulleys

Standard of Workmanship. Guaranteed Satisfaction

This pulley is made for strength and wearing qualities. The rims of all pulleys over 11 inches in diameter are composed of segments, which are made from wide laggings from linden wood, which makes the best surface yet discovered. These segments are both glued and nailed, being nailed while glue is hot. The hubs and arms are of hard maple, which extend into the rim and are securely glued and nailed.

All pulleys 11 inches in diameter and under are made of the least number of pieces possible. A perfect unbreakable pulley. Pulleys 11 to 35 inches in diameter inclusive, as illustrated. 36 inch and larger have cross-arms. Every Pulley is Balanced.

81M104

SIZES AND NET PRICES

When Ordering, Always Give Diameter, Face, Size of Shaft, and Whether Crown or Straight Face.

Diam. Inches	WIDTH OF FACE, INCHES						
	3	4	5	6	8	10	12
4	\$1.68	\$1.74	\$1.86	\$1.98	\$2.22	\$2.46	\$2.70
5	1.71	1.77	1.92	2.04	2.31	2.58	2.85
6	1.74	1.80	1.95	2.10	2.40	2.70	3.00
7	1.77	1.83	2.01	2.16	2.49	2.85	3.15
8	1.80	1.86	2.04	2.22	2.58	2.94	3.30
9	1.86	1.95	2.16	2.34	2.73	3.12	3.51
10	1.95	2.04	2.25	2.46	2.88	3.30	3.72
11	2.10	2.22	2.46	2.70	3.18	3.66	4.14
12	2.25	2.40	2.67	2.94	3.48	4.02	4.56
13	.....	2.58	2.88	3.18	3.78	4.38	4.98
14	.....	2.76	3.09	3.42	4.08	4.74	5.40
15	.....	2.94	3.30	3.66	4.38	5.10	5.82
16	.....	3.12	3.51	3.96	4.68	5.46	6.24
17	.....	3.30	3.72	4.14	4.98	5.82	6.66
18	.....	3.48	3.93	4.38	5.28	6.18	7.08
19	.....	3.66	4.14	4.62	5.58	6.54	7.50
20	.....	3.84	4.35	4.86	5.88	6.90	7.92
22	.....	4.20	4.77	5.34	6.48	7.62	8.76
24	.....	4.62	5.28	5.94	7.26	8.58	9.90
26	.....	5.04	5.79	6.54	8.04	9.54	11.04
28	.....	5.46	6.30	7.14	8.82	10.50	12.18
30	.....	5.88	6.81	7.74	9.60	11.46	13.32
32	.....	6.30	7.32	8.34	10.38	12.42	14.46
34	.....	6.78	7.89	9.00	11.22	13.44	15.66
36	.....	7.26	8.46	9.66	12.06	14.46	16.86
38	.....	.....	.....	10.32	12.90	15.48	18.06
40	.....	.....	.....	10.98	13.74	16.50	19.26
42	.....	.....	.....	11.76	14.76	17.76	20.76
44	.....	.....	.....	12.54	15.78	19.02	22.26
46	.....	.....	.....	13.38	16.86	20.34	23.82
48	.....	.....	.....	14.28	18.00	21.72	25.44

We Can Furnish Larger Sizes.

Prices on Application.

WOOD BUSHINGS

One Furnished with each pulley.

Made of four pieces by machines that form them perfectly true and they will conform to the shaft and run true and with a sure grip.

EXTRA BUSHINGS

Ten inch and shorter, 50c net.

Over ten inch long, 5c per inch net.

Standard Bore—Wood Split Pulleys

3 inches diameter. . . Bored 1½ inches

4 " " " " 2 " "

5 and 6 " " " " 2½ " "

7 to 12 " " " " 3 " "

13 " 24 " " " " 3½ " "

26 " 48 " " " " 4 " "

Extra Prices for Holes larger than Standard

Percentage to be added to Price List.

PULLEY DIAM., INCHES	15%	20%	25%	35%
Under 12	3 ⅞ to 4	4 ⅞ to 5	5 ⅞ to 6	.....
12 to 48	4 ⅞ to 4 ½	4 ⅞ to 6	6 ⅞ to 7 ½	7 ⅞ to 10

Non Listed Pulleys.

Odd sizes, take next larger size, both as to diameter and face.

"ONEIDA" PRESSED STEEL SPLIT PULLEYS

81M102

SIZES AND NET PRICES

Dia. Ins.	WIDTH OF FACE, INCHES						
	3	4	5	6	8	10	12
6	\$2.48	\$2.59	\$2.81	\$3.04	.....	.....	.....
7	2.54	2.70	2.93	3.15	.....	.....	.....
8	2.59	2.81	3.04	3.26	\$3.71	4.20	.....
9	2.70	2.93	3.15	3.38	3.83	4.31	.....
10	2.81	3.04	3.26	3.49	3.94	4.43	4.84
11	2.93	3.15	3.38	3.60	4.05	4.50	5.18
12	3.15	3.47	3.60	4.00	4.34	4.84	5.74
13	3.26	3.60	3.90	4.22	4.82	5.40	6.30
14	3.38	3.90	4.24	4.61	5.29	6.02	6.75
15	3.49	4.09	4.35	4.91	5.74	6.60	7.31
16	3.71	4.31	4.58	5.18	6.19	7.09	7.88
17	3.94	4.50	4.88	5.46	6.59	7.54	8.44
18	4.16	4.79	5.25	5.74	6.98	7.99	9.00
19	4.35	5.06	5.63	6.19	7.60	8.44	9.68
20	4.50	5.63	6.08	6.75	8.05	9.00	10.69
22	4.88	6.41	7.13	7.71	9.00	10.58	12.60
24	5.63	6.68	7.50	8.21	9.90	11.76	14.29
26	.....	7.16	7.88	8.96	10.80	12.83	15.98
28	.....	8.10	8.78	9.68	11.59	13.61	17.18
30	.....	9.00	9.68	10.58	12.94	14.93	18.56
32	.....	9.90	10.58	11.59	14.51	16.88	20.15
34	.....	10.80	11.81	12.94	16.31	19.13	22.50
36	.....	11.93	13.39	14.63	18.00	21.49	25.31
38	.....	14.63	15.49	16.31	19.80	23.29	27.86
40	.....	15.75	17.06	18.00	21.38	25.31	30.11
42	.....	17.44	18.64	19.69	24.19	28.13	32.63
44	.....	.....	.....	21.94	26.72	30.94	35.44
46	.....	.....	.....	24.75	29.25	33.75	37.69
48	.....	.....	.....	27.56	31.50	36.56	40.50

We Can Furnish Larger Sizes.

Prices on Application.

Every Pulley
Guaranteed
for Double
Belt Duty.

Lighter than
Cast Iron;
More sightly
than wood;
Stronger
than either.



"ONEIDA" Steel Split Pulleys are unexcelled by any pulleys made. They are reinforced at every vital point and run in perfect true and balance. They have no seam through the center of the face, but have a perfect oval (not angle) crown, insuring maximum belt adhesion. The strongest and most economical pulley on the market.

SOLID AND SPLIT CAST IRON PULLEYS



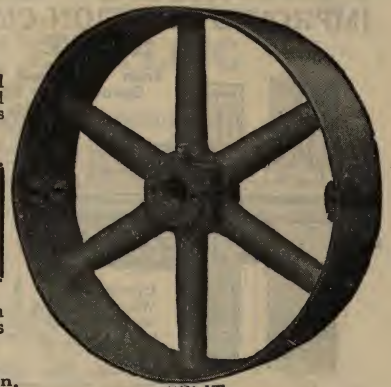
Machine—Moulded—Balanced—True

For Single or Double Belts.

Our pulleys are machine-moulded, bored, and turned in a lathe, carefully balanced, painted and provided with Set Screws or Key-Seats as may be desired.

Boxing or crating pulleys for shipment are charged for extra.
Pulleys shipped by express must be boxed or claim for breakage will not be allowed.

When orders are received and no description given, crowning face, Single Belt Solid Pulleys will be furnished.



SOLID

Other Sizes Furnished. Prices on Application.

SPLIT

Note: Double Belt Pulleys indicated by bold faced type in column of face dimensions.

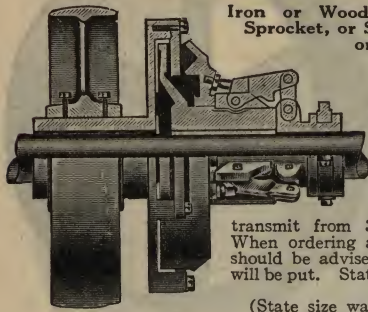
81M100

SIZES, NET PRICES, ETC.

Diameter Inches	Face Inches	Solid	Split	Diameter Inches	Face Inches	Solid	Split	Diameter Inches	Face Inches	Solid	Split	Diameter Inches	Face Inches	Solid	Split	Diameter Inches	Face Inches	Solid	Split
6	3	\$1.32	\$2.22	7	3	\$3.15	\$4.59	16	10	\$6.63	\$8.82	26	3	\$4.65	\$6.45	36	10	\$15.72	\$20.25
	4	1.50	2.40		4	3.51	4.95		11	7.20	9.72		4	5.40	7.20		11	16.98	22.14
	5	1.71	2.76		5	4.38	6.06		12	7.80	10.32		5	6.15	8.46		12	18.27	23.43
	6	1.92	2.97		6	4.80	6.48		3	2.94	4.20		6	6.90	9.21		5	10.62	14.19
	7	2.16	3.36		7	5.25	7.17		4	3.30	4.56		7	7.65	10.41		6	11.88	15.42
	8	2.43	3.63		8	5.73	7.65		5	3.75	5.31		8	8.43	11.19		7	13.17	17.34
	9	3.03	4.41		9	6.21	8.34		6	4.20	5.76		9	9.21	12.45		8	14.46	18.63
	10	3.33	4.71		10	6.73	9.06		7	4.71	6.57		10	10.02	13.26		9	15.75	20.58
	11	3.63	5.19		11	7.23	9.81		8	5.25	7.17		11	12.84	16.56		10	17.04	21.87
	12	3.93	5.49		12	7.73	10.41		9	5.85	8.04		12	13.86	17.58		11	18.36	23.85
7	3	1.44	2.34	8	3	3.42	4.98	17	10	7.08	9.30	28	3	5.13	7.08	38	12	19.71	25.20
	4	1.65	2.55		4	3.78	5.34		11	7.68	10.20		4	5.97	8.21		5	11.37	15.15
	5	1.86	2.91		5	4.21	5.84		12	8.31	10.83		5	6.81	9.30		6	12.69	16.47
	6	2.10	3.15		6	4.69	6.54		3	3.12	4.47		6	7.65	10.14		7	14.04	18.48
	7	2.37	3.57		7	5.19	7.17		4	3.51	4.83		7	8.49	11.46		8	15.42	19.86
	8	2.64	3.84		8	5.69	7.81		5	3.96	5.64		8	9.33	12.30		9	16.80	21.93
	9	3.21	4.59		9	6.19	8.49		6	4.44	6.12		9	10.20	13.68		10	18.18	23.31
	10	3.51	4.89		10	6.69	9.19		7	4.98	7.02		10	11.10	14.58		11	19.56	25.38
	11	3.81	5.37		11	7.19	9.89		8	5.58	7.59		11	12.06	16.05		12	20.97	26.79
	12	4.11	5.70		12	7.69	10.49		9	6.24	8.61		12	15.27	19.26		13	22.37	28.19
8	3	1.59	2.55	9	3	3.66	5.22	18	10	7.59	9.96	30	3	5.64	7.74	40	14	23.77	29.59
	4	1.80	2.76		4	4.05	5.61		11	8.25	10.98		4	6.54	8.64		15	25.17	30.99
	5	2.04	3.18		5	4.47	6.30		12	8.91	11.64		5	7.47	10.14		16	26.57	32.39
	6	2.28	3.42		6	4.89	6.78		3	3.45	4.92		6	8.40	11.07		17	27.97	33.79
	7	2.55	3.87		7	5.31	7.35		4	3.99	5.46		7	9.51	12.69		18	29.37	35.19
	8	2.85	4.17		8	5.81	8.01		5	4.53	6.36		8	10.29	13.47		19	30.77	36.59
	9	3.48	5.01		9	6.31	8.61		6	5.10	6.93		9	11.25	14.97		20	32.17	37.99
	10	3.81	5.34		10	6.81	9.21		7	5.67	7.86		10	12.21	15.93		21	33.57	39.39
	11	4.17	5.91		11	7.31	9.81		8	6.27	8.46		11	13.20	17.46		22	34.97	40.79
	12	4.56	6.30		12	7.81	10.41		9	6.93	9.51		12	16.71	20.97		23	36.37	42.19
9	3	1.74	2.70	10	3	3.87	5.58	20	10	7.62	10.20	32	3	6.18	8.46	42	14	37.77	43.59
	4	1.95	2.91		4	4.32	6.03		11	8.36	12.33		4	7.14	9.42		15	39.17	44.99
	5	2.19	3.33		5	4.77	6.78		12	9.11	13.08		5	8.13	11.01		16	40.57	46.39
	6	2.46	3.60		6	5.21	7.43		3	3.81	5.40		6	9.12	12.00		17	41.97	47.79
	7	2.76	4.08		7	5.69	8.19		4	4.44	6.03		7	10.14	13.56		18	43.37	49.19
	8	3.06	4.38		8	6.17	8.93		5	5.07	7.05		8	11.16	14.58		19	44.77	50.59
	9	3.78	5.31		9	6.69	9.69		6	5.70	7.68		9	12.21	16.20		20	46.17	51.99
	10	4.14	5.67		10	7.19	10.39		7	6.33	8.70		10	13.29	17.28		21	47.57	53.39
	11	4.50	6.24		11	7.69	11.09		8	6.93	9.30		11	14.40	18.96		22	48.97	54.79
	12	4.89	6.63		12	8.19	11.79		9	7.59	10.38		12	15.56	20.52		23	50.37	56.19
10	3	1.86	2.88	11	3	3.96	5.70	22	10	8.31	11.10	34	3	8.82	11.91	44	14	51.77	57.59
	4	2.10	3.12		4	4.42	6.24		11	9.06	12.12		4	9.90	12.99		15	53.17	58.99
	5	2.37	3.60		5	4.91	6.84		12	9.81	13.14		5	10.94	14.10		16	54.57	60.39
	6	2.64	3.87		6	5.39	7.44		3	4.23	5.91		6	12.18	15.84		17	55.97	61.79
	7	2.94	4.38		7	5.89	8.04		4	4.92	6.60		7	13.32	17.58		18	57.37	63.19
	8	3.27	4.71		8	6.39	8.64		5	5.61	7.74		8	14.49	18.75		19	58.77	64.59
	9	4.08	5.76		9	6.89	9.24		6	6.30	8.43		9	15.66	20.52		20	60.17	65.99
	10	4.50	6.18		10	7.39	9.84		7	6.99	9.54		10	16.82	22.26		21	61.57	67.39
	11	4.92	6.84		11	7.89	10.44		8	7.68	10.23		11	17.97	24.00		22	62.97	68.79
	12	5.37	7.29		12	8.39	11.04		9	8.40	11.40		12	19.14	25.74		23	64.37	70.19
11	3	1.98	3.00	12	3	4.38	6.24	24	10	9.12	12.12	36	3	10.80	14.10	46	14	65.77	71.59
	4	2.25	3.27		4	4.92	6.78		11	9.84	13.12		4	12.03	15.93		15	67.17	72.99
	5	2.52	3.75		5	5.42	7.32		12	10.56	14.16		5	13.26	17.16		16	68.57	74.39
	6	2.82	4.05		6	5.92	7.86		3	4.71	6.45		6	14.49	19.02		17	69.97	75.79

FRICITION CLUTCHES AND PULLEYS

IMPROVED FRICITION CLUTCH WITH SLEEVE



Iron or Wood Split Pulley, Gear, Sprocket, or Sheave may be fitted on Sleeve.

Our Improved Friction Clutch is of such construction that it can be easily applied to stationary and portable machine tools and Countershafts, as well as Pulleys, Gears, Sprockets, or Sheaves. We furnish them to transmit from 3 to 400 Horse Power. When ordering a clutch or coupling, we should be advised of the use to which it will be put. State length of sleeve wanted.

(State size wanted and give full information when ordering.)

81M120 NET PRICE---DIMENSIONS, ETC.

Size	Largest Bore	Space on Shaft of Clutch	Length of Sleeve	Highest Speed	H. P. at 100 R. P. M.	Net Price, of Clutch with Strud. Sleeve.	Net Price extra per foot longer Sleeve
6	1 1/4	10 1/2	6	500	3	\$21.25	\$0.50
8	1 3/4	10 1/2	6	450	3	26.65	.55
10	2	11 1/2	8	400	10	33.25	.60
12	2 1/4	12 1/2	8	400	15	40.00	.70
14	2 3/4	14 1/2	10	350	20	51.25	.70
16	3	15 1/2	10	300	25	54.00	.75
18	3 1/4	17 1/2	12	300	35	73.25	.80
20	3 3/4	17 1/2	12	250	45	92.00	.85
24	4 1/4	20 1/2	14	250	65	120.00	.90
30	5 1/4	22 1/2	16	200	100	165.00	1.00
36	6 1/4	24 1/2	20	200	140	245.00	1.25

We can also furnish clutch without Hub for attaching direct to arms of pulleys or sheave wheels. Add 20% to above prices for split clutches.

81M122

SIZES AND NET PRICES

Diam., Ins.	Face Ins.	H. P. 100 R. P. M.	Largest Bore Ins.	Total Shaft Space	Net Price, Each	Diam., Ins.	Face Ins.	H. P. 100 R. P. M.	Largest Bore Ins.	Total Shaft Space	Net Price, Each	Diam., Ins.	Face Ins.	H. P. 100 R. P. M.	Largest Bore Ins.	Total Shaft Space	Net Price, Each
12	4	2.5	2	14	\$24.38	24	7	9.3	2 1/2	18	\$37.70	34	6	11.3	3 1/2	18	\$48.75
	5	3.5	2 1/2	15	26.33		8	10.5	3 1/2	20	45.50		7	13.2	3 1/2	19	50.38
	6	4.0	2 1/2	16	26.65		9	12.0	3 1/2	21	46.48		8	15.1	3 1/2	21	58.50
	7	4.5	2 1/2	17	27.14		10	13.0	3 1/2	22	47.61		9	17.0	3 1/2	22	60.13
	8	5.0	2 1/2	18	27.63				3 1/2				10	18.8	3 1/2	23	61.75
													12	22.6	4	26	73.45
14	4	3.0	2 1/2	14	26.33	26	4	5.6	2 1/2	14	29.90	36	6	12.0	3 1/2	18	50.05
	5	3.5	2 1/2	15	26.65		5	7.2	2 1/2	16	36.73		7	14.0	3 1/2	19	51.84
	6	4.5	2 1/2	16	27.30		6	8.5	2 1/2	17	37.70		8	16.0	3 1/2	21	59.96
	7	5.3	2 1/2	17	27.95		7	10.0	2 1/2	19	38.84		9	18.0	3 1/2	22	61.75
	8	5.5	2 1/2	19	34.13		8	11.5	2 1/2	20	46.80		10	20.0	4	24	72.31
							9	12.3	3 1/2	21	47.94		12	24.0	4	26	76.05
							10	13.5	3 1/2	22	49.08						
16	4	3.5	2 1/2	14	26.65	28	4	6.2	2 1/2	16	36.24	40	6	14.3	3 1/2	18	52.65
	5	4.5	2 1/2	15	27.30		5	7.2	2 1/2	16	37.38		7	15.5	3 1/2	20	61.10
	6	5.3	2 1/2	16	27.95		6	9.3	2 1/2	17	38.68		8	18.7	3 1/2	21	63.05
	7	6.0	2 1/2	18	30.55		7	10.3	3 1/2	19	46.80		10	22.4	4	24	75.40
	8	7.0	2 1/2	19	34.78		8	12.4	3 1/2	20	47.94		12	27.9	4 1/2	28	92.95
18	4	4.0	2 1/2	14	27.30	30	6	10.0	3 1/2	18	46.64	42	6	14.0	3 1/2	18	54.11
	5	5.0	2 1/2	15	27.95		7	11.5	3 1/2	19	47.94		8	18.0	3 1/2	21	64.03
	6	6.0	2 1/2	16	28.60		8	13.3	3 1/2	20	49.24		10	23.8	4	24	77.84
	7	7.0	2 1/2	18	29.90		9	15.0	3 1/2	22	52.20		12	28.0	4 1/2	28	94.90
	8	8.0	2 1/2	19	35.59		10	15.6	3 1/2	23	58.50						
							12	20.0	4	26	70.53		6	15.5	3 1/2	19	63.38
20	4	4.5	2 1/2	14	27.79	32	6	10.5	3 1/2	18	47.45	46	8	20.5	4	22	77.19
	5	5.5	2 1/2	15	28.60		7	12.4	3 1/2	19	49.08		10	25.5	4 1/2	26	94.74
	6	6.5	2 1/2	17	34.94		8	14.2	3 1/2	20	53.95		12	31.0	4 1/2	28	99.45
	7	7.7	2 1/2	18	35.75		9	16.0	3 1/2	22	58.50						
	8	8.8	2 1/2	19	36.56		10	17.7	3 1/2	23	60.13		6	16.0	3 1/2	19	65.00
	9	10.0	3 1/2	21	44.52		12	21.3	4	26	71.66		8	21.5	4	22	78.51
	10	11.0	3 1/2	22	45.34		14	24.8	4	29	75.40		10	26.5	4 1/2	26	99.13
24	4	5.5	2 1/2	14	29.25								12	32.0	4 1/2	28	101.73
	5	6.5	2 1/2	16	30.23								14	37.5	4 1/2	30	115.38
	6	8.0	2 1/2	17	35.75												

The prices given are for the pulleys, furnished with plain bores. Other sizes furnished. Prices on application. For Split Clutches, add 20% to above prices. For High Speed Shafts, Pulleys should be bronze bushed.

81M123

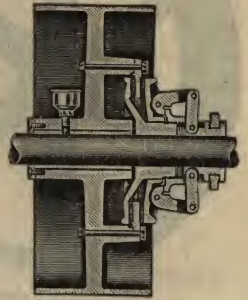
Net Prices for Bronze Bushing Pulleys to be added to above prices.

Size of Shaft	Price per Inch	Size of Shaft	Price per Inch	Size of Shaft	Price per Inch	Size of Shaft	Price per Inch	Size of Shaft	Price per Inch	Size of Shaft	Price per Inch
1 1/4	\$0.70	1 1/2	\$1.83	2 1/4	\$1.17	2 1/2	\$1.25	3 1/4	\$1.50	3 1/2	\$2.06
1 1/2	.72	2 1/2	1.08	2 3/4	1.25	3 3/4	1.50	4 1/4	1.50	4 1/2	2.06

Multiply the Net Price per inch of bushing by the width of pulley face and add amount to price of Clutch Pulley.

FRICITION CLUTCH PULLEYS FOR LINE SHAFTS

Notice the simple design and the powerful leverage in our toggle arrangement. This latter feature is a very important factor, because it determines the degree of pressure that can be applied to the friction plates. The toggles also give the clutch a positive release. While the clutch is being disengaged the toggles come in contact with the outside diameter of the adjusting ring, and the friction plate is then forced away from the friction surface.



Our clutches have been tested with a poney brake and in determining the rated horse power a large factor of safety was employed.

The adjustment is made by means of a threaded ring screwed on to the clutch sleeve. This ring is split on one side and is clamped in place with a bolt. When adjusting, first loosen the clamping bolt then turn the ring to the right to tighten and to the left to loosen. This one ring adjusts all toggles at the same time, assuring a like pressure on each toggle. Retighten the clamping bolt before placing the strain on the adjusting ring.

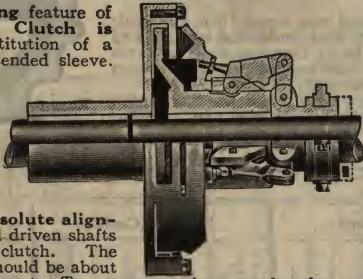
The friction contact is wood to iron. Our experience has proved to us that regardless of what material the friction surfaces are made of, either one or both of them will wear, and in time must be renewed. With wood to iron, the iron plates cannot wear, and when the wood wears it can be replaced at little expense, making the clutch as good as new.

Friction Clutch Pulleys and Couplings

IMPROVED CLUTCH OR CUT-OFF COUPLING

The Cut-Off Coupling feature of the Improved Split Clutch is obtained by the substitution of a hub in place of the extended sleeve.

This hub is keyed to the shaft and is provided with a brass bushing for receiving the extended part of the shaft, to which the driving plate is keyed, thus making a true male and female bearing for shafts, and assuring absolute alignment. The driving and driven shafts are both keyed to the clutch. The ends of the two shafts should be about one-eighth of an inch apart. To secure the best results the two shafts should be perfectly in line. (State size wanted and give full information when ordering.)



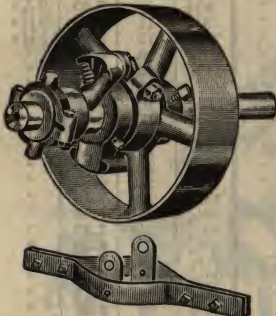
81M118

NET PRICE—DIMENSIONS, ETC.

Size	Largest Bore	Total Space on Shaft	H. P. at 100 R. P. M.	Net Price
6	1 1/2 in.	12 1/2 in.	3	\$21.00
8	2 1/4 in.	14 in.	8	26.50
10	2 3/4 in.	15 1/2 in.	12	33.00
12	3 1/4 in.	16 3/4 in.	16	39.65
14	4 1/2 in.	18 1/2 in.	22	49.25
16	4 3/4 in.	18 3/4 in.	27	59.40
18	5 in.	20 in.	36	72.00
20	6 in.	21 in.	48	79.00
24	6 1/2 in.	24 1/4 in.	65	118.85
30	7 1/2 in.	27 1/4 in.	100	174.00
36	8 in.	29 1/2 in.	145	257.00

For price on Split Couplings add 20% to the above prices.

MASTER CONTRACTING BAND CLUTCH PULLEY



This clutch is extremely simple and easy to adjust. It is durable and efficient, strong and compact, requiring very little space on the shaft, and may be erected complete on same in short order. It costs little to buy, little to erect, and little to maintain. When you stop to consider that this clutch pulley, complete in many instances is only one-third higher in price than a pair of tight and loose pulleys, and that the clutch does away with shifting and unnecessary wear of belts; you will be convinced that you are losing money and putting up with unnecessary inconveniences by not installing this clutch pulley. Recommended for light power transmission where the strain is an even pull.

mission where the strain is an even pull.

81M114

SIZES—NET PRICES, ETC.

Dia., In.	Face, In.	H. P. 100 R. P. M.	Space on Shaft	Net Price, Each	Dia., In.	Face, In.	H. P. 100 R. P. M.	Space on Shaft	Net Price, Each
6	3	0.8	11 1/2"	\$13.56	13	3	1.8	11 1/2"	\$15.20
4	1.1	12 1/2"	13.80		4	2.3	11 1/2"	15.75	
5	1.4	13 1/2"	14.15		5	2.8	11 1/2"	16.35	
6	1.6	14 1/2"	14.50		6	3.4	12 1/2"	18.50	
7	3	1.0	11 1/2"	13.75	14	3	1.9	11 1/2"	15.48
4	1.3	12 1/2"	14.00		4	2.5	11 1/2"	16.00	
5	1.6	13 1/2"	14.50		5	3.0	11 1/2"	17.80	
6	1.8	14 1/2"	14.85		6	3.6	12 1/2"	18.95	
8	3	1.2	11 1/2"	13.90	15	3	2.0	11 1/2"	15.75
4	1.4	11 1/2"	14.30		4	2.7	11 1/2"	16.45	
5	1.8	11 1/2"	14.70		5	3.2	11 1/2"	18.65	
6	2.1	12 1/2"	15.00		6	3.9	12 1/2"	19.35	
9	3	1.2	11 1/2"	14.15	16	3	2.1	11 1/2"	16.25
4	1.6	11 1/2"	14.58		4	2.8	11 1/2"	16.90	
5	2.0	11 1/2"	15.00		5	3.4	11 1/2"	19.00	
6	2.4	12 1/2"	15.48		6	4.2	12 1/2"	19.90	
10	3	1.4	11 1/2"	14.52	18	3	2.4	11 1/2"	16.80
4	1.8	11 1/2"	15.00		4	3.1	11 1/2"	17.70	
5	2.2	11 1/2"	15.42		5	4.0	11 1/2"	20.00	
6	2.6	12 1/2"	15.90		6	4.7	12 1/2"	20.90	
11	3	1.5	11 1/2"	14.75	20	3	2.7	11 1/2"	17.45
4	2.0	11 1/2"	15.25		4	3.6	11 1/2"	19.90	
5	2.4	11 1/2"	15.75		5	4.4	11 1/2"	20.90	
6	2.9	12 1/2"	16.25						
12	3	1.6	11 1/2"	15.00	22	3	3.0	11 1/2"	18.60
4	2.1	11 1/2"	15.50		4	3.9	11 1/2"	21.20	
5	2.6	11 1/2"	16.00		24	3	3.2	11 1/2"	21.50
6	3.1	12 1/2"	18.00		4	4.1	11 1/2"	22.00	

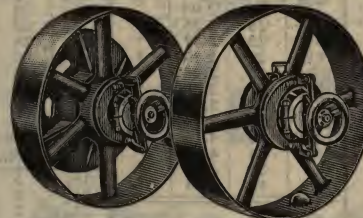
All Single Belt Pulleys—Largest Bore is 2 1/4 inch.

Add 20% for Babbitted Pulleys and 50% for Split Pulleys.

Intermediate Sizes Take Next Higher Price.

"LEMLEY" FRICTION CLUTCHES

For Gasoline Engines.



No. 2 Clutch No. 1 Clutch

be replaced at little expense, making the clutch as good as new.

SAVE TIME BY GIVING FULL INFORMATION.

No. 1 CLUTCH

In ordering, state distance from rim to end of hub. Width of key seat in shaft. Diameter of shaft. Length of projecting shaft. Give horsepower of engine. Give speed of engine.

No. 2 CLUTCH

Same as No. 1 Clutch pulley except that it is made with a spider to bolt on to the arms of the engine fly wheel. In ordering state or give full description of fly wheel and as required for No. 1 clutch.

81M116

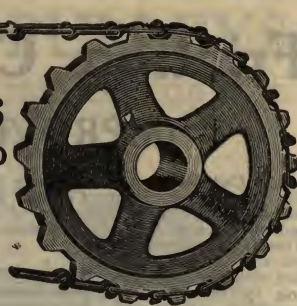
SIZES AND NET PRICES

Diam. Pulley, Inches	Face Pulley, Inches	H. P. of Engine	Largest Shaft No. 1 Clutch will take	Largest Bore for No. 1 Clutch	Net Price, No. 1 Clutch	Net Price, No. 2 Clutch
10	6	8	6 1/4"	2 1/4"	\$19.25	\$22.75
10	8	8	6 1/4"	2 1/4"	20.15	23.65
12	6	8	6 1/4"	2 1/4"	20.15	23.65
12	8	8	6 1/4"	2 1/4"	21.15	24.65
14	6	8	6 1/4"	2 1/4"	20.80	24.30
14	8	8	6 1/4"	2 1/4"	22.10	25.60
16	8	8	6 1/4"	2 1/4"	22.75	27.75
16	10	14	8 1/4"	2 3/4"	27.00	32.00
16	12	20	8 1/4"	4"	42.25	47.25
18	8	14	8 1/4"	2 3/4"	26.65	31.65
18	10	16	8 1/4"	3 1/4"	34.15	39.25
18	12	30	8 1/4"	4"	42.50	49.00
20	8	14	8 1/4"	2 3/4"	27.60	33.00
20	10	16	8 1/4"	3 1/4"	34.25	40.75
20	12	30	9 1/4"	4"	48.75	57.75
22	8	14	8 1/4"	2 3/4"	28.60	35.00
22	10	16	8 1/4"	3 1/4"	35.75	42.25
22	12	20	8 1/4"	4"	50.70	59.70
24	8	14	8 1/4"	2 3/4"	30.55	37.00
24	10	16	8 1/4"	3 1/4"	37.70	46.00
24	12	20	8 1/4"	4"	51.00	60.00
26	8	14	8 1/4"	2 3/4"	30.85	39.85
26	10	16	8 1/4"	3 1/4"	38.00	47.00
26	12	20	8 1/4"	4"	52.00	61.00
28	10	20	8 1/4"	4"	50.70	59.70
28	12	30	9 1/4"	4"	57.85	67.85
30	10	20	8 1/4"	4"	52.65	62.65
30	12	30	9 1/4"	4"	59.80	69.85

Other Sizes furnished—Prices on application.

We are equipped to furnish Friction Clutches for all sizes of Gas and Gasoline Engines.

Write for prices, giving full description of Engine.



Cast Iron Sprocket Wheels

BORED, KEY SEATED AND SET SCREWED

Prices below are for sprockets bored not larger than specified. We can furnish sprockets with any size bore under the largest bore given at the price quoted. For larger bores than specified, an extra charge will be made. Some size wheels take several numbers of chain as in the case of numbers 35, 45 and 55, or 57, 67 and 77, etc.

When ordering sprockets with clutch hubs, state whether clutch is to be on right or left side as top of wheel turns from you.

NET PRICES--81M1000

No. 25				Nos. 33 and 34 (Cont.)				No. 42 (Cont.)				No. 62 (Cont.)				Nos. 75, 78, 88			
Pitch Diameter Inches	No. of Teeth	Net Price Solid	Largest Bore at Price	Pitch Diameter Inches	No. of Teeth	Net Price Solid	Largest Bore at Price	Pitch Diameter Inches	No. of Teeth	Net Price Solid	Largest Bore at Price	Pitch Diameter Inches	No. of Teeth	Net Price Solid	Largest Bore at Price	Pitch Diameter Inches	No. of Teeth	Net Price Solid	Largest Bore at Price
1 1/4	5	\$1.07		4 1/2	10	\$1.50	1 1/4	5 1/4	11	\$2.34	1 1/4	5 1/4	11	\$2.08	1 1/4	4 1/4	5	\$1.95	1 1/4
1 1/2	6	1.11		5 1/4	11	1.56		6 1/4	12	2.47		6 1/4	12	2.34	1 1/4	5 1/4	6	2.21	1 1/4
2	7	1.14		5 1/2	12	1.63		7 1/4	13	2.63		7 1/4	14	2.73	1 1/4	6 1/4	7	2.41	1 1/4
2 1/4	8	1.17		6 1/4	14	1.82		8 1/4	15	2.80		8 1/4	15	2.89	1 1/4	6 3/4	8	2.60	1 1/4
2 1/2	9	1.20		6 1/2	15	1.95		9 1/4	16	3.06		9 1/4	16	3.06	1 1/4	7 1/4	9	2.93	1 1/4
3	10	1.24		7 1/4	16	2.08		10 1/4	18	3.32		10 1/4	18	3.38	1 1/4	8 1/4	10	3.25	1 1/4
3 1/4	11	1.27		8	18	2.34		11 1/4	20	3.77		11 1/4	20	3.64	1 1/4	9 1/4	11	3.61	1 1/4
3 1/2	12	1.30		8 1/2	19	2.47		12 1/4	21	3.90		12 1/4	21	3.90	1 1/4	10	12	3.97	1 1/4
3 3/4	13	1.33		9 1/4	22	2.86		13 1/4	24	4.55		13 1/4	24	4.23	1 1/4	10 3/4	13	4.32	1 1/4
4	14	1.37		10 1/4	24	3.06		14 1/4	26	5.07		14 1/4	26	4.39	1 1/4	11 1/4	14	4.68	1 1/4
4 1/4	15	1.40		12	27	3.38		15 1/4	28	5.72		15 1/4	28	5.27	1 1/4	12 1/4	15	4.94	1 1/4
4 1/2	16	1.43		12 1/2	28	3.51		16 1/4	30	6.37		16 1/4	30	5.66	1 1/4	13 1/4	16	5.20	1 1/4
5	17	1.50		13	29	3.71		18 1/4	34	7.78		18 1/4	34	6.37	1 1/4	14 1/4	17	5.53	1 1/4
5 1/4	18	1.56		14 1/2	32	4.10		20	55			20	38	7.15	1 1/4	15 1/4	18	5.85	1 1/4
5 1/2	19	1.63		15 1/4	34	4.36		No. 51				23	43	8.13	1 1/4	15 3/4	19	6.18	1 1/4
5 3/4	20	1.69		16 1/2	36	4.55		23 1/4	45	8.52		23 3/4	45	8.52	1 1/4	16 3/4	20	6.50	1 1/4
6	21	1.76		18 1/4	41	5.14		25 1/4	49	9.30		25 3/4	49	9.30	1 1/4	17 1/4	21	6.83	1 1/4
6 1/4	22	1.82		No. 35, 45, 55				30 1/2	58	11.31		No. 57, 67, 77				19 1/4	23	7.54	1 1/4
6 1/2	23	1.89		2 1/2	5	\$1.33	1 1/4	4	11	1.50	1 1/4	4	5	\$1.56	1 1/4	20	24	7.93	1 1/4
7	24	1.95		3	6	1.37	1 1/4	4 1/2	12										

We can supply Split Sprockets. Write for Prices.



Link Chain Belting



STANDARD SIZES PLAIN LINK BELTING

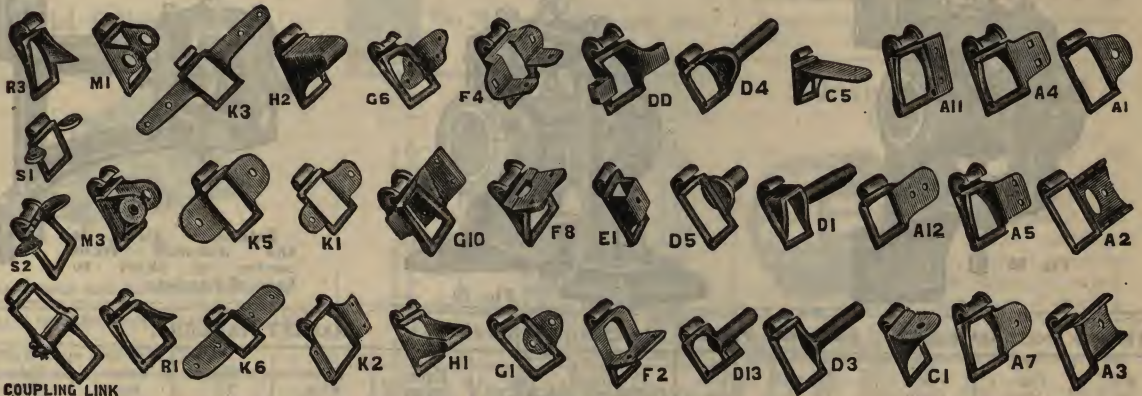
81M1002

Net Prices Per Foot

Number	Net Price per foot	Approximate Links per 10 feet	Net Price Couplers per pair	Number	Net Price per foot	Approximate Links per 10 feet	Net Price Couplers per pair	Number	Net Price per foot	Approximate Links per 10 feet	Net Price Couplers per pair
25	\$0.09	133	\$0.09	52	\$0.14	80	\$0.14	78	\$0.26	46	\$0.26
32	.10	104	.10	55	.12	74	.12	83	.31	30	.31
33	.09	86	.09	57	.14	52	.14	85	.34	30	.34
34	.10	86	.10	62	.16	73	.16	88	.30	46	.30
35	.11	74	.11	66	.19	60	.19	93	.45	30	.45
42	.11	88	.11	67	.17	52	.17	95	.38	30	.38
45	.10	74	.10	75	.16	46	.16	103	.44	39	.44
51	.14	104	.14	77	.19	52	.19	108	.45	25	.45

RUN LINK CHAIN BELTING WITH BACK OF COUPLING HOOK TO THE WHEEL—ON DRIVES HOOK COMES IN CONTACT WITH SPROCKET FIRST—ON ELEVATORS AND CONVEYORS THE BAR COMES IN CONTACT WITH SPROCKET FIRST.

ATTACHMENT LINKS FOR LINK BELTING



COUPLING LINK

No. 81M1006

NET PRICES EACH—MINIMUM CHARGE FOR LINKS 50c

No. 25	No. 33	No. 42 (Cont.)	No. 45 (Cont.)	No. 52 (Cont.)	No. 57 (Cont.)	No. 77	No. 88
A-1...\$0.02	A-1... .03	A-3...\$0.07	K-1...\$0.04	K-1...\$0.05	E-1...\$0.09	A-1...\$0.11	A-1...\$0.18
A-3... .03	C-1... .04	C-1... .04	K-3... .09	K-5... .10	F-2... .11	C-1... .12	A-3... .23
C-1... .03	D-3... .06	D-2... .05	K-5... .06		K-1... .09	D-5... .12	D-5... .20
C-5... .04	E-1... .03	E-1... .04	K-40... .11	No. 55		E-1... .10	E-1... .19
D-3... .03	K-1... .04	K-1... .04	K-45... .07	No. 62		G-1... .12	F-2... .20
E-1... .03	K-3... .07	K-3... .09	S-1... .05	A-1...\$0.05	A-1...\$0.06	G-6... .13	F-8... .20
G-1... .03	K-5... .05	K-5... .06	S-5... .07	A-2... .06	A-2... .08	K-1... .14	G-1... .22
H-2... .02	K-6... .06	K-6... .08		A-3... .07	A-12... .09		G-6... .18
K-1... .03	S-1... .04	K-45½ .14	No. 51	A-11... .06	C-1... .06	No. 78	K-1... .16
M-1... .03		S-1... .04	A-1...\$0.05	A-12... .07	G-1... .10	A-1...\$0.16	No. 95
S-1... .03	No. 34		C-1... .05	C-1... .05	G-27... .08	A-3... .20	F-2...\$0.40
	A-1...\$0.04	No. 45	K-1... .06	D-3... .12	G-28... .11	A-11... .14	K-2... .32
	C-1... .04	A-1... .04	K-5... .06	D-5... .08	K-1... .07	D-5... .27	No. 103
No. 32	C-2... .05	A-2... .05	S-1... .06	E-1... .05	K-5... .07	E-1... .15	A-4... .31
A-1...\$0.03	E-1... .03	A-3... .07		F-2... .06	S-1... .06	F-2... .17	A-11... .29
A-3... .03	K-1... .04	A-12... .06	No. 52	G-26... .07		G-1... .20	D-5... .41
A-12... .05		A-14... .06	A-1...\$0.05	G-27... .07	No. 67	G-6... .17	E-1... .32
C-1... .04	No. 35	C-1... .04	A-3... .06	K-1... .05	A-1...\$0.10	K-1... .14	F-2... .32
D-3... .05	A-1...\$0.04	C-15... .06	A-11... .10	K-5... .07	E-1... .09	K-3... .23	G-6... .35
E-1... .03	C-1... .05	D-3... .08	A-14... .08	L-2... .06	K-1... .10		K-1... .29
G-1... .05	E-1... .04	D-5... .07	C-1... .06	S-1... .05		No. 85	K-2... .30
K-1... .03	K-1... .05	E-1... .04	D-3... .10	No. 57	No. 75	D-5...\$0.17	No. 108
K-3... .06	S-1... .05	E-12... .03	D-5... .08	A-1...\$0.08	E-1... .10	F-2... .33	F-2...\$0.56
K-5... .04		F-2... .05	E-1... .06	C-1... .09	G-1... .17	G-6... .37	K-2... .48
K-6... .06	No. 42	G-1... .04	F-2... .06	D-5... .10	K-1... .11	K-2... .29	
S-1... .04	A-1...\$0.04						

We can furnish attachments for all Standard chains. Write for prices on attachments not listed.

UNIVERSAL ADJUSTABLE DROP HANGERS

81M132 RING OILING DROP HANGERS, FIG. 60.

Size of Shaft, Inches.	Net Price, 6 to 8 in. Drop.	Net Price, 8 to 10 in. Drop.	Net Price, 10 to 12 in. Drop.	Net Price, 14 to 16 in. Drop.	Net Price, 18 to 20 in. Drop.	Net Price, 22 to 24 in. Drop.
1 1/8	\$2.45	\$2.63	\$2.80	\$3.33	\$3.68	\$4.38
1 1/4	3.15	3.33	3.50	4.03	4.55	5.25
1 1/2	3.50	3.68	3.85	4.38	4.90	5.60
1 3/4	4.20	4.38	4.55	5.08	5.43	5.95
1 7/8	4.90	5.08	5.25	5.78	6.13	6.65
2 1/8	6.13	6.48	6.65	7.35	7.88	8.58
2 1/4	6.83	7.18	7.35	8.05	8.58	9.28

81M134 PLAIN OILING DROP HANGERS, FIG. 60B.

Size of Shaft, Inches.	Net Price, 6 to 8 in. Drop.	Net Price, 8 to 10 in. Drop.	Net Price, 10 to 12 in. Drop.	Net Price, 14 to 16 in. Drop.	Net Price, 18 to 20 in. Drop.	Length Boxes Inches.
1 1/8	\$1.93	\$2.10	\$2.28	\$2.80	\$3.15	4
1 1/4	2.10	2.28	2.45	2.98	4.03	5
1 1/2	2.63	2.80	2.98	3.50	4.55	6
1 3/4	3.33	3.50	3.68	4.20	4.73	7
1 7/8	3.68	3.85	4.03	4.55	5.08	8
2 1/8	5.39	5.74	5.92	6.62	7.14	9
2 1/4	6.02	6.34	6.55	7.25	7.74	10

We can furnish other sizes. Prices on application.

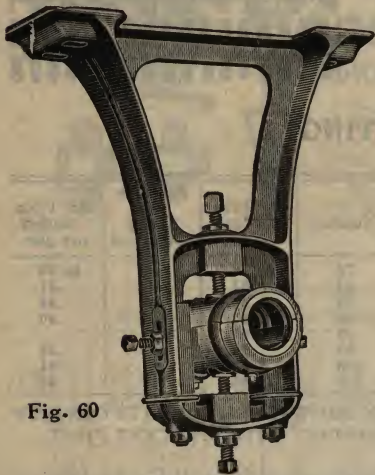


Fig. 60

POST HANGERS

PILLOW BLOCKS

BRACKET HANGERS

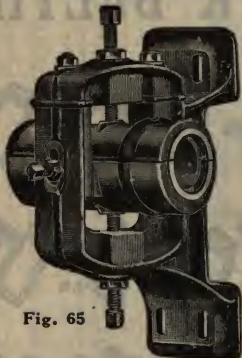


Fig. 65

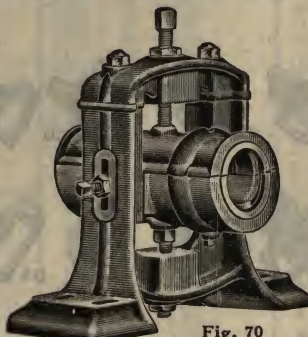


Fig. 70

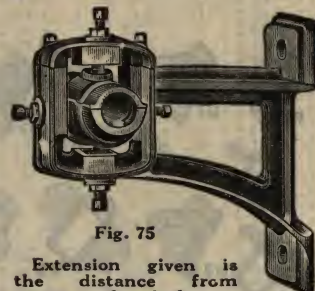


Fig. 75

Extension given is the distance from center of shaft to base of hanger.

81M136 POST HANGERS

81M138 PILLOW BLOCKS

81M140

BRACKET HANGERS.

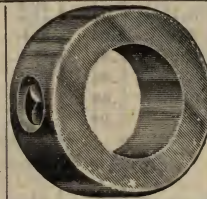
Fig. 65, Size	Net Price, Ring Oiling	Net Price, Plain Oiling	Fig. 70, Size	Net Price, Ring Oiling	Net Price, Plain Oiling	Fig. 75, Size	Extension In.	Net Price, Ring Oiling	Fig. 75, Size	Extension In.	Net Price, Ring Oiling
1 1/8	\$2.63	\$2.10	1 1/8	\$2.45	\$1.93	1 1/8	10	\$3.50	1 1/8	10	\$4.55
1 1/4	3.33	2.28	1 1/4	3.15	2.10		12	3.85		12	4.90
1 1/2	3.68	2.80	1 1/2	3.50	2.63		14	4.20		14	5.43
1 3/4	4.20	3.50	1 3/4	4.20	3.33		16	4.55		16	5.95
1 7/8	4.90	3.85	1 7/8	4.90	3.68	1 1/4	10	3.85	1 1/8	10	5.25
2 1/8	6.48	5.74	2 1/8	6.13	5.39		12	4.20		12	5.60
2 1/4	7.18	6.37	2 1/4	6.83	6.02		14	4.55		14	6.13
2 1/2	9.45	8.75	2 1/2	8.05	7.35		16	4.90		16	6.65



Steel Shafting Cold Rolled

81M126—Sizes and Prices per Cut Length. Shaft cut to other Lengths than those listed at proportionate prices plus 10%.

Diam.	6 Ft.	8 Ft.	10 Ft.	12 Ft.	14 Ft.	16 Ft.	18 Ft.	20 Ft.	22 Ft.	24 Ft.
1 5/16	\$0.70	\$0.92	\$1.17	\$1.40	\$1.64	\$1.87	\$2.11	\$2.34	\$2.57	\$2.81
1 1/8	.80	1.06	1.33	1.60	1.86	2.13	2.39	2.66	2.93	3.19
1 3/8	1.08	1.44	1.80	2.16	2.52	2.88	3.24	3.60	3.96	4.32
1 1/4	1.20	1.60	2.00	2.40	2.80	3.19	3.59	3.99	4.39	4.79
1 5/16	1.33	1.77	2.21	2.66	3.10	3.54	3.98	4.43	4.87	5.31
1 3/8	1.45	1.94	2.42	2.91	3.39	3.88	4.36	4.85	5.33	5.82
1 7/16	1.58	2.11	2.64	3.17	3.70	4.22	4.75	5.28	5.81	6.34
1 1/2	1.67	2.23	2.79	3.35	3.91	4.46	5.02	5.58	6.14	6.70
1 5/8	1.96	2.62	3.27	3.93	4.58	5.24	5.89	6.54	7.20	7.86
1 11/16	2.12	2.84	3.53	4.24	4.95	5.65	6.36	7.07	7.77	8.48
1 3/4	2.28	3.04	3.79	4.55	5.31	6.07	6.83	7.59	8.35	9.11
1 15/16	2.79	3.72	4.65	5.58	6.51	7.44	8.37	9.30	10.23	11.16
2	2.97	3.96	4.95	5.94	6.93	7.92	8.91	9.90	10.89	11.89
2 1/8	3.37	4.49	5.61	6.74	7.86	8.98	10.10	11.23	12.35	13.47
2 3/16	3.57	4.76	5.95	7.14	8.33	9.52	10.71	11.89	13.09	14.27
2 5/16	3.86	5.14	6.43	7.71	9.00	10.28	11.57	12.85	14.14	15.42
2 3/8	4.07	5.43	6.78	8.14	9.49	10.85	12.21	13.55	14.92	16.28
2 7/16	4.27	5.70	7.12	8.55	9.97	11.40	12.82	14.25	15.67	17.10



Safety Collars

81M128 Net Prices

Size	Price Each	Size	Price Each
1 5/16	\$0.22	1 7/8	\$0.47
1	.23	1 15/16	.49
1 1/8	.26	2	.51
1 3/8	.28	2 1/8	.54
1 1/4	.30	2 3/16	.56
1 5/16	.32	2 1/4	.58
1 3/8	.33	2 3/8	.61
1 7/16	.35	2 7/16	.63
1 1/2	.37	2 1/2	.66
1 5/8	.39	2 5/8	.71
1 3/4	.40	2 11/16	.74
1 11/16	.42	2 3/4	.76
1 3/4	.44	2 7/8	.81
1 13/16	.46	2 15/16	.84

PILLOW BLOCKS, POST HANGERS, Etc.

Rigid Pillow Blocks

Light Pattern

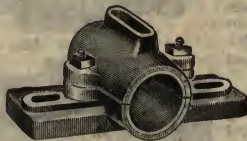


Fig. 85

With Split and Babbitted Bearings

81M162 Sizes and Net Prices

Size Shaft, Inches	Net Price Each	Size Shaft, Inches	Net Price Each
1 1/4	\$0.50	1 1/2	\$1.10
1 1/2	.55	1 3/4	1.20
1 3/4	.60	1 7/8	1.30
1 7/8	.65	2	1.45
2	.70	2 1/4	1.50
2 1/4	.80	2 1/2	1.70
2 1/2	.90	2 3/4	2.00
2 3/4	1.00	3	2.50

Rigid Pillow Blocks

Heavy Pattern

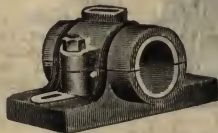


Fig. 90

With Split and Babbitted Bearings

PLAIN OILING AND RING OILING

81M168 Sizes and Net Prices

Size Shaft Inches	Price Plain Oiling	Price Ring Oiling	Length Bearing P. O.	Length Bearing R. O.
1 1/4	\$0.75	\$2.25	2 1/4	4 3/4
1 1/2	.90	2.40	3 3/8	5 1/2
1 3/4	1.35	3.00	4 3/8	6 1/2
1 7/8	1.65	3.40	5 1/8	7 1/2
2	2.10	3.90	5 7/8	8 1/2
2 1/4	2.40	4.55	6 1/2	9 1/4
2 1/2	2.85	5.20	7 3/8	10 1/2
2 3/4	3.60	6.00	8 1/4	11 1/4
3	4.50	6.75	8 7/8	12 1/2
3 1/4	5.70	7.80	9 1/4	13 1/2
3 1/2	6.60	9.75	10 1/4	14 1/2
3 3/4	7.80	11.70	11 1/4	15 1/2
4	9.90	14.30	11 7/8	16 3/4
4 1/4	10.80	17.20	12 3/4	17 1/2
4 1/2	12.60	20.00	13 1/2	18 3/4

Intermediate sizes furnished at next higher price. Unless otherwise stated, Plain Oiling Boxes will be sent.

Rosette Bearings

Babbitted and Fitted with Grease Cups

Used for Conveyor Ends, Elevator Head and boat bearings, or any place where a side bearing is required.

Sizes and Net Prices

81M176

Size Shaft Inches	Net Price Each
1/2 to 1 1/4	\$0.55
1 1/2 to 1 3/4	.65
1 3/4 to 1 7/8	.80
1 7/8 to 2	1.15



Fig. 120

Angle Clamp Boxes



Fig. 105

With Split Babbitted Bearing Plain Oiling
Sizes and Net Prices

81M164

Size Shaft Inch.	Net Price Each	Size Shaft Inch.	Net Price Each	Size Shaft Inch.	Net Price Each
1 1/4	\$0.80	1 1/2	\$1.10	1 3/4	\$1.35
1 1/2	.90	1 3/4	1.15	1 7/8	1.50
1 3/4	.95	1 7/8	1.20	2	1.65
1 7/8	1.00	2	1.25	2 1/4	1.75

Rigid Post Hangers



Fig. 95

For Light Shafts on Short Shafts

Plain and Ring Oiling

Unless otherwise ordered. Plain-oiling Boxes will be sent. Intermediate sizes furnished at next higher price.

Sizes and Net

81M170 Prices

Size Shaft Inches	Net Price Each Plain Oiling	Net Price Each Ring Oiling
1 1/4	\$2.10	\$2.60
1 1/2	2.20	3.25
1 3/4	2.40	3.75
1 7/8	3.00	4.35
2	3.70	5.50
2 1/4	4.20	6.50
2 1/2	5.10	8.45
2 3/4	6.00	9.75
3	6.90	12.00
3 1/4	9.35	14.30
3 1/2	11.80	17.00
3 3/4	14.25	20.00
4	17.00	23.40
4 1/4	20.00	26.65

Rigid Vertical Bearings

Solid and Split



Fig. 110

Solid Type

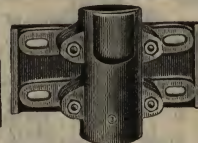


Fig. 115

Split Type

81M174 Sizes and Net Prices

Size of Shaft	Net Price	Size of Shaft	Net Price
1 1/4	\$1.35	1 1/2	\$2.25
1 1/2	1.50	1 3/4	3.00
1 3/4	1.70	2	3.75
1 7/8	2.25	2 1/4	4.50
2	3.00	2 1/2	5.40
		2 3/4	6.75
		3	7.80
		3 1/4	9.50

Babbitted bearings fitted with Grease pockets. 2 1/2" size and over has four holes.

Solid Sleeve Couplings



Fig. 125

For Light Transmission

Made of Cast Iron with Countersunk Set Screw.

81M178 Sizes and Net Prices

Size of Shaft	Price Each	Size of Shaft	Price Each
1 1/4	\$1.65	1 1/2	\$2.10
1 1/2	1.75	1 3/4	2.40
1 3/4	1.85	1 7/8	3.00

Ribbed Compression Couplings



Fig. 130

Clamp to shaft with all the direct force of bolts. Hold shafts parallel; can be removed without disturbing shaft.

81M166 Sizes and Net Prices

Size Shaft Inches	Extreme Length on Shaft	Outside Diam. of Coupling	Net Price Coupling
1 1/4	6"	4 3/4"	\$3.20
1 1/2	6 1/2"	5 1/8"	3.50
1 3/4	7"	5 1/2"	4.50
2	8 1/2"	6 1/2"	5.35
2 1/4	9 1/4"	6 7/8"	5.85
2 1/2	9 3/4"	7 1/4"	6.65
2 3/4	10 1/2"	7 3/4"	8.00
3	10 3/4"	7 7/8"	10.15
3 1/4	13"	8 1/8"	11.50
3 1/2	13"	8 3/8"	13.00
3 3/4	13"	8 7/8"	14.90
4	16"	9 1/2"	20.00

Note:—Write for prices for fitting couplings to shaft.

Cinch Compression Couplings

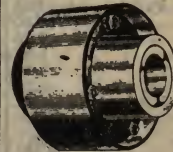


Fig. 135

Strong, light in weight, tapering sleeve, grips shaft perfectly. Special bushings used for reducer couplings. For reducer couplings add 20% to list price of larger bore of coupling.

81M172 Sizes and Net Prices

Size Shaft	Price Each	Size Shaft	Price Each
1 1/4	\$3.45	2 1/4	\$6.50
1 1/2	4.00	2 1/2	7.75
1 3/4	4.65	2 3/4	9.35
1 7/8	5.75	2 7/8	11.50

Flange or Plate Couplings

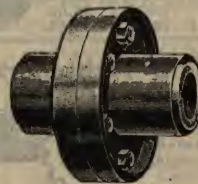


Fig. 140

Finished all over, key-seated with keys.

Note:—Write for price for fitting couplings to shaft.

81M180 Sizes and Net Prices

Size Shaft	L'gth on Shaft	Price Each	Size Shaft	L'gth on Shaft	Price Each
1 1/4	5"	\$4.25	3 1/4	9 1/4"	\$13.85
1 1/2	5 1/4"	4.80	3 1/2	9 3/4"	15.20
1 3/4	5 3/4"	5.60	3 3/4	10 1/4"	17.85
1 7/8	6 1/4"	6.00	3 7/8	10 3/4"	19.20
2	6 1/2"	6.90	4	11 3/8"	26.00
2 1/4	7 3/8"	7.75	4 1/4	11 3/4"	33.60
2 1/2	8"	9.65	4 1/2	12 1/2"	36.50
2 3/4	8 3/4"	11.50	4 3/4	13"	40.00

For reducing couplings add 20% to net price of the larger size.

Take-Up Boxes, Jaw Couplings, Belt Tighteners, etc.

Adjustable Take-Up Boxes



Fig. 200
Style A

For use where it is necessary to take up slack in belts. Made to pull and push.

In ordering, give diameter of shaft and style of take-up.

The number of frame indicates length of movement in inches.

81M181 Sizes and Net Prices

No. Frame	Diam. Shaft	Length Bearing	Net Price Ea., Style "A" or "B"
4	1 1/4"	2	\$4.00
6	1 1/4"	3	4.50
8	1 1/4"	4 1/2	5.50
8	1 1/4"	4 1/2	6.00
9 1/2	2 1/4"	5	7.00
9 1/2	2 1/4"	5	8.00
13	2 1/4"	5 1/2	9.50
20	2 1/4"	6	12.50
20	2 1/4"	6 1/2	15.00



Fig. 209
Style B

Jaw Clutches and Jaw Clutch Couplings

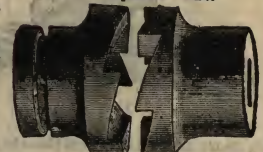
Made with either spiral or square jaws. Spiral jaws either right or left-hand. Left-hand shown in cut.

Pulleys, sprockets, or gears cast with clutch hub when ordered.

State whether clutch or wheel is to drive and send sketch showing arrangement and direction shaft revolves. For reduction coupling, add 30% to price of largest bore. Furnished with yoke and collar. Levers furnished by customer.



Square Jaw



Spiral Jaw

81M190

Sizes and Net Prices

Size of Shaft	Length on Shaft	Net Price per Pair	Size of Shaft	Length on Shaft	Net Price per Pair
1 1/4"	7 1/4"	\$ 8.80	2 1/4"	11 1/4"	\$18.10
1 1/4"	8 1/4"	9.60	2 1/4"	12 1/4"	20.40
1 1/4"	8 3/4"	10.50	3 1/4"	13 1/4"	23.25
1 1/4"	9 1/4"	12.20	3 1/4"	15 1/4"	25.70
2 1/4"	9 3/4"	13.90	3 1/4"	15 3/4"	28.35
2 1/4"	10 1/4"	15.90	3 1/4"	16 1/4"	33.00

Light Take-Up Boxes

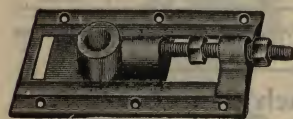


Fig. 207

For Elevator Boats and for Light Conveyors. Length adjustment 3 inches.

81M188

Prices each, Net

1 1/4 inch.....	\$1.50
1 inch.....	1.75
1 1/4 inch.....	1.95
1 1/2 inch.....	2.10
1 3/4 inch.....	2.25

Swinging Belt Tightener

Sizes of Pulleys given are Standard, but may be varied to meet special requirements. Larger sizes furnished. Prices on application.

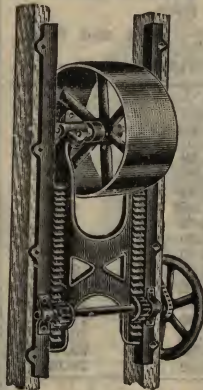
81M1054

Sizes and Net Prices

No.	Swing Feet	Size Pulley, Inches	Price Each
1	3	12x 8	\$26.25
2	3	12x10	30.75
3	4	20x14	35.00
4	4	24x16	39.50



Rack and Pinion Belt Tightener



To operate Either Vertically or Horizontally. For Wood Posts.

Furnished with cast iron guides and accurately balanced pulley.

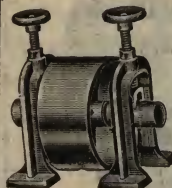
Rigid plain oiling bearings.

81M1050

Dimensions and Net Prices

No.	Length of Adjustment, Feet	Size of Pulley, Diam. Face	Diam. of Shaft	Net Price
00	1 1/4	12x 9	1 1/4	\$27.00
0	1 1/2	18x12	1 1/4	37.50
1	2	24x14	1 1/4	52.50
2	3 1/2	28x20	2 1/4	75.00
3	4	30x26	2 1/4	120.00

Adjustable Belt Idlers



Can be attached to ceiling or floor, or used in any position.

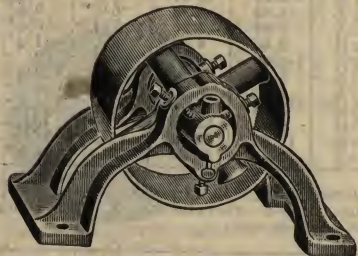
Bearings are adjustable, vertically, for 5 inches.

Made of cast iron throughout, with a machine-molded, machine-turned cast iron pulley in perfect balance.

81M1060 Sizes and Net Prices

No.	Size of Pulley	Net Price
7	10x4	\$14.85
8	10x5	15.75
9	10x6	16.65
10	12x6	17.55
11	12x7	18.45
12	12x8	20.00

Belt Idlers



This Idler may be attached to the ceiling and used as a hanging jack or placed on the floor, the bearings being reversible.

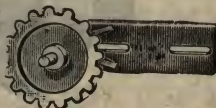
Made of cast iron throughout, machined and neatly assembled.

81M1064 Sizes and Net Prices

No.	Size of Pulley	Net Price
1	10x 4	\$10.50
2	10x 5	11.50
3	12x 6	12.50
4	12x 7	13.50
5	14x 8	14.50
6	16x10	16.50

Chain Tighteners

For Wall or Post Has slotted holes to allow considerable adjustment without changing position of bolts.



81M1056 Sizes and Net Prices

For No. 25 to 55 chain, inc., each.....\$3.50
For No. 57 to 88 chain, inc., each.....\$5.25
For No. 95 to 103 chain, inc., each.....\$7.00

Flange Tighteners



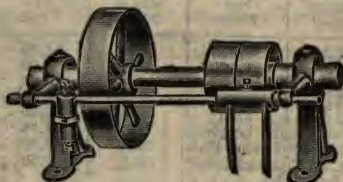
For Wall or Post

The same construction as tightener above, except it is finished with flange instead of a sprocket.

81M1057 Sizes and Net Prices

For No. 25 to 55 chain, inc., each.....\$3.25
For No. 57 to 88 chain, inc., each..... 5.00
For No. 95 to 103 chain, inc., each..... 6.75

Countershafts

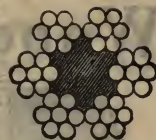
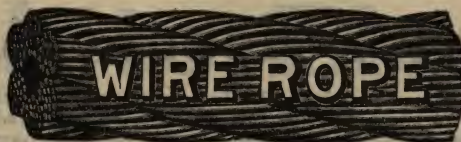


We list below complete countershafts for light work, and can furnish larger outfits on short notice and at reasonable prices.

81M1062 Sizes and Net Prices

Number.....	1	2	3	4
Diam. Shaft...	7/8"	1"	1 1/4"	1 1/2"
Length Shaft...	18"	20"	24"	30"
T. & L. Pulleys.	4x1 1/4	5x2 1/4	6x3	6x4 1/2
Drive Pulley...	8x1 1/4	10x2 1/4	12x3	16x4
Drop.....	6"	6"	7 1/2"	9"
Weight, Lbs....	25	36	50	85
Price, Each....	\$7.50	\$9.85	\$13.50	\$22.75

Note.—No. 4 Countershaft has vertical adjustment for boxes and babbitted bearings.

**CRUCIBLE CAST STEEL HOISTING ROPE**

This rope is applicable to a great variety of uses. It is particularly adapted for service in mines, for logging, on elevators, derricks, hay presses, dredges and inclined planes, cable ways, cargo and coal hoists, conveyors. Furnished with wire center at 10% extra.

Composed of 6 Strands of 19 Wires to the Strand, Hemp Center
81M1492

NET PRICES

Diameter Inches	Net Price per Foot	Approximate Breaking Strain in Tons of 2,000 lbs.	Diameter Hemp Rope of Equal Strength	Allowable Working Strain in Tons of 2,000 lbs.	Average Weight per Foot	Minimum Size of Drums or Sheaves in Feet
3/8	\$0.07 1/2	4.8	1 1/4	1 1/4	0.22	1 1/2
7/8	.08	6.5	1 1/2	1 1/4	0.30	1 3/4
1 1/8	.08 1/2	8.4	1 3/4	1 3/4	0.39	2
1 1/2	.09 1/2	10.	1 7/8	2 1/4	0.50	2 1/4
1 3/4	.11	12.5	1 3/4	2 3/4	0.62	2 1/2
1 7/8	.15	17.5	2 1/8	3 3/4	0.89	3
2	.19	23.	2 3/8	5 1/4	1.20	3 1/2
2 1/4	.24	30.	3	6 3/4	1.58	4

SWEDES IRON HOISTING ROPE

The Swedish iron being soft, tough and pliable this rope is adaptable for any work where a pliable rope is essential. Recommended for elevator work or on pulleys smaller than standard. Furnished with wire center at 10% extra. Composed of 6 Strands of 19 Wires Each. Hemp Center.

81M1493

NET PRICES

Diameter Inches	Net Price per Foot	Approximate Breaking Strain in Tons of 2,000 lbs.	Diameter Hemp Rope of Equal Strength	Allowable Working Strain in Tons of 2,000 lbs.	Average Weight per Foot	Minimum Size of Drums or Sheaves in Feet
1/4	\$0.06	1.1	1/2	1/4	0.10	1 1/2
3/8	.06 1/2	1.5	3/8	1/2	0.15	2
1/2	.06 3/4	2.5	1	7/10	0.22	2 1/4
5/8	.07	3.4	1 1/8	9/10	0.30	2 3/4
3/4	.07 1/2	4.	1 1/4	1	0.39	3
7/8	.09	5.	1 1/2	1 1/8	0.50	3 1/2
1	.10 1/2	6.	1 3/4	1 1/2	0.62	4
1 1/8	.14	9.	1 7/8	1 3/4	0.89	4 1/2
1 1/4	.18	13.	2	2 1/2	1.20	5 1/2
1 1/2	.23	17.	2 1/4	3 1/2	1.58	6

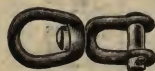
PLOUGH STEEL HOISTING ROPE

Especially suitable for use on car pullers or as hoisting rope. The lay of the wires and of the strands are perfectly proportioned so that each wire gets the proper proportion of the load. Made with 6 strands of 19 wires each, with one hemp center.

81M1499

NET PRICES PER FOOT

Diam., Inches	Price Per Foot	Approx. Breaking Strain in Tons of 2,000 lbs.	Allowable Working Strain in Tons of 2,000 lbs.	Average Weight Per Foot	Minimum Diameter of Drums in Feet
1/4	\$0.08	2.65	.53	.10	1.
3/8	.08 1/2	3.88	.76	.15	1.25
1/2	.08 3/4	5.75	1.15	.22	1.50
5/8	.09	8.	1.6	.30	1.75
3/4	.10	10.	2.	.39	2.
7/8	.11	12.3	2.4	.50	2.25
1	.13	15.5	3.1	.62	2.5
1 1/8	.18	23.	4.6	.89	3.
1 1/4	.23	29.	5.8	1.20	3.5
1 1/2	.30	38.	7.6	1.58	4.
1 3/4	.37	47.	9.4	2.	4.5
1 7/8	.45	58.	12.	2.45	5.
2	.55	72.	14.	3.	5.5
2 1/4	.65	82.	16.	3.55	6.

**SWIVEL SHACKLES**

Galvanized---Drop Forged.
To keep car puller rope from twisting.

81M1489 Sizes and Net Prices

Size Swivel, Inches	Length, Inches	Width Between Jaws, In	Price, Each
3/4	8	1 1/8	\$5.00
1	9	1 1/4	5.50
1 1/8	11	1 1/2	6.00
1 1/4	12	1 3/8	6.50
1 1/2	13 1/2	1 3/4	7.00

**SNATCH BLOCK**

Plain Oiling
Wrought Iron
81M1890 Sizes and Net Prices.

Diam. Sheave	Diam. Rope	Price Each
12"	5/8"	\$11.50
14"	3/4"	12.50
16"	7/8"	19.50
18"	1"	26.75
20"	1 1/8"	35.00

CRUCIBLE STEEL TRANSMISSION AND HAULAGE ROPE

This rope is much stiffer than hoisting rope. Especially adapted for underground haulage in mines, incline planes or for deep well drilling. Will resist wear and give excellent service on such work. Furnished with wire center at 10% extra.

Composed of 6 Strands of 7 Wires to the Strand, Hemp Center.
81M1496

NET PRICES

Diameter Inches	Net Price per Foot	Approximate Breaking Strain in Tons of 2,000 lbs.	Allowable Working Strain in Tons of 2,000 lbs.	Average Weight per Foot	Minimum Size of Drums or Sheaves in Feet
9/32	\$0.03	2.8	1/2	0.12 1/2	1 1/4
5/16	.03 1/2	3.4	3/4	0.15	2 1/4
3/8	.04 1/2	4.8	1	0.22	2 3/4
7/16	.05	6.6	1 1/8	0.30	3
1/2	.06	8.4	1 1/4	0.39	3 1/2
5/8	.08	10.	1 3/8	0.50	4
3/4	.09 1/2	13.	2 1/2	0.62	4 1/2
7/8	.11 1/2	15.	3	0.75	4 3/4
1	.13 1/2	18.	3 3/4	0.89	5
1 1/8	.18	24.	4 3/4	1.20	6
1 1/4	.23	32.	6 1/2	1.58	7

GALVANIZED WIRE STRAND

Composed of 7 Steel Wires twisted into a single strand. For Smoke Stack Guys, Electric Light Plants, Street Railways, Signal Cord, Fencing and other Purposes.

81M1498

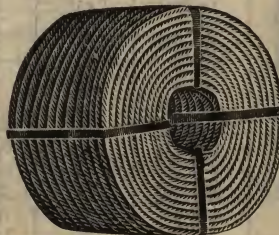
NET PRICES PER 100 FEET

Diameter Inches	Net Price, per 100 Feet	Approximate Strength Pounds	Approximate Weight per 1,000 Feet
3/32	\$0.80	400	20
1/8	1.00	500	32
5/32	1.15	900	55
3/16	1.25	1400	75
1/4	1.75	2300	125
5/16	2.75	3800	210
3/8	3.50	5000	295
7/16	4.50	6500	415
1/2	5.50	8500	510
5/8	8.50	11000	700

**"CROSBY" WIRE ROPE CLIPS WIRE ROPE THIMBLES**

81M1494 Sizes and Net Prices 81M1495 Galvanized, Ex. Heavy

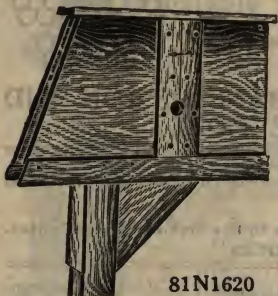
Diameter Rope	Net Price, Each	Diameter Rope	Net Price, Each
1/4	\$0.25	1/4	\$0.06
5/16	.25	5/16	.06
3/8	.28	3/8	.07
1/2	.30	1/2	.08
5/8	.30	5/8	.12
3/4	.45	3/4	.14
7/8	.50	7/8	.15
1	.60	1	.20
1 1/8	.65	1 1/8	.25
1 1/4	.75	1 1/4	.30

MANILA TRANSMISSION ROPE

We can supply Manila transmission rope in all sizes and for all purposes. This is the best quality transmission rope obtainable, being treated with a special composition of coating, which lubricates and waterproofs the rope as nearly as possible.
Prices on Application

Wood Elevator Heads

Made of Dressed, Seasoned,
Clear Poplar Lumber



Design approved by the insurance underwriters. Made in three sections, the top half in two parts, which can be readily separated from the bottom section and the pulley changed without disturbing the legs and lower section.

In ordering elevator heads with pulleys, be sure to specify the size of shaft to be used and whether solid or split pulleys are wanted.

We carry a complete stock of Solid Cast Iron Pulleys for elevator heads up to 24 inch diameter inclusive with $1\frac{5}{16}$ inch bore.

Prices quoted are for solid pulleys. Write for prices on split pulleys.

Prices stated do not include head shaft bearings or collars.

81N1620

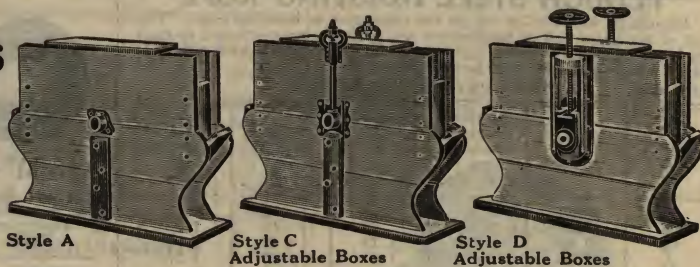
SIZES, NET PRICES AND TABLE OF SPEEDS AND CAPACITIES.

No.	Size of Cups	Width of Belt	Size of Head Pulley	Rev. per Minute	Belt Speed in Feet per Minute	GRAIN	FLOUR or MEAL	Size of Dressed Cypress Lumber Used	Net Price Head Without Pulley	Net Price Head Pulley
	Width Projection					Capacity per Hour 16 ins. apart Cups $\frac{3}{8}$ full	Capacity per Hour 16 ins. apart Cups $\frac{3}{8}$ full			
1	3 x3	3½	16x 4	48	200	38 bu.	1312 lbs.	1	\$3.65	\$3.12
2	3½x3	4	16x 4½	48	200	43 bu.	1688 lbs.	1	9.00	3.30
3	4 x3	4½	16x 5	48	200	50 bu.	2062 lbs.	1	9.35	3.48
4	3 x3	3½	18x 4	45	212	40 bu.	1390 lbs.	1	9.00	3.51
5	3½x3	4	18x 4½	45	212	46 bu.	1790 lbs.	1	9.35	3.74
6	4 x3	4½	18x 5	45	212	53 bu.	2186 lbs.	1	9.75	3.96
7	4½x3½	5	18x 5½	45	212	79 bu.	3180 lbs.	1	10.10	4.20
8	5 x4	5½	18x 6	45	212	112 bu.	4373 lbs.	1	10.35	4.44
9	6 x4	6½	18x 7	45	212	135 bu.	4770 lbs.	1	11.25	4.98
10	4 x3	4½	20x 5	42	220	55 bu.	2270 lbs.	1	10.10	4.53
11	4½x3½	5	20x 5½	42	220	82 bu.	3317 lbs.	1	10.50	4.82
12	5 x4	5½	20x 6	42	220	115 bu.	4518 lbs.	1	11.25	5.10
13	5½x4	6	20x 6½	42	220	127 bu.	4744 lbs.	1	11.50	5.39
14	6 x4	7	20x 7½	42	220	140 bu.	4950 lbs.	1	11.75	5.97
15	7 x4½	8	20x 8½	42	220	212 bu.	7837 lbs.	1	12.00	6.60
16	6 x4	7	24x 7½	40	251	160 bu.	5644 lbs.	1	12.35	7.34
17	7 x4½	8	24x 8½	40	251	240 bu.	8943 lbs.	1	12.75	8.04
18	8 x5	9	24x 9½	40	251	330 bu.	12,236 lbs.	1	13.00	8.76
19	9 x5	10	24x10½	40	251	360 bu.	13,177 lbs.	1	13.50	11.13
20	9 x5	10	30x10½	38	298	437 bu.	.....	1½	23.50	12.71
21	11 x6	12	30x13	38	298	800 bu.	.....	1½	24.00	17.91
22	12 x6	13	30x14	38	298	857 bu.	.....	1½	30.00	19.14
23	11 x6	12	36x13	37	349	935 bu.	.....	1½	36.00	22.89
24	12 x6	13	36x14	37	349	1000 bu.	.....	1½	39.00	24.42
25	14 x6	15	36x16	37	349	1185 bu.	.....	1½	41.00	27.51
26	12 x6	13	42x14	36	396	1135 bu.	.....	1½	42.00	29.70
27	14 x6	15	42x16	36	396	1344 bu.	.....	1½	45.00	33.24
28	16 x6	18	42x19	36	396	1580 bu.	.....	1½	48.00	38.61
29	11 x6	12	48x13	34	427	1150 bu.	.....	1½	60.00	33.93
30	12 x6	13	48x14	34	427	1230 bu.	.....	1½	61.50	36.00
31	14 x6	15	48x16	34	427	1460 bu.	.....	1½	65.00	40.20
32	16 x6	18	48x19	34	427	1700 bu.	.....	1½	67.50	46.62

Wood Elevator Boots

The most approved designs, made of one inch dressed clear Poplar Lumber and put together with flat head Bright Wood Screws.

All Boots equipped with clean-out slides. All boot pulleys are of Cast Iron, machine molded, bored, balanced and turned in a lathe.



SIZES AND NET PRICES (With Table of Speeds and Capacities)

Size	Size of Cups	Width of Belt	Size of Boot Pulley	Rev. per Minute	Belt Speed in Ft. per Minute	GRAIN	Net Price Style "A" Boot and Boot Shaft Without Pulley	Net Price Style "C" Boot and Bt. Shaft Without Pulley	Net Price, Style "D" Boot and Boot Shaft Without Pulley	Net Price of Pulley Extra
	Width Projection					Capacity Per Hour 16 ins apart Cups $\frac{3}{8}$ full	81N1622	81N1624	81N1626	81M100
33	3 x3	3½	16x 4	48	200	38 bu.	\$8.65	\$10.65	\$22.65	\$3.12
34	3½x3	4	16x 4½	48	200	43 bu.	9.00	11.25	24.00	3.30
35	4 x3	4½	16x 5	48	200	50 bu.	9.35	11.60	24.35	3.48
36	3 x3	3½	18x 4	45	212	40 bu.	9.00	12.25	24.00	3.51
37	3½x3	4	18x 4½	45	212	46 bu.	9.35	12.50	24.35	3.74
38	4 x3	4½	18x 5	45	212	53 bu.	9.75	12.75	24.75	3.96
39	4½x3½	5	18x 5½	45	212	79 bu.	10.10	13.10	25.10	4.20
40	5 x4	5½	18x 6	45	212	112 bu.	10.35	13.35	25.35	4.44
41	6 x4	6½	18x 7	45	212	135 bu.	11.25	14.25	26.25	4.98
42	4 x3	4½	20x 5	42	220	55 bu.	10.10	13.20	25.10	4.53
43	4½x3½	5	20x 5½	42	220	82 bu.	10.50	13.60	25.50	4.82
44	5 x4	5½	20x 6	42	220	115 bu.	11.25	14.45	26.25	5.10
45	5½x4	6	20x 6½	42	220	127 bu.	11.50	14.80	26.50	5.39
46	6 x4	7	20x 7½	42	220	140 bu.	11.75	15.03	26.75	5.97
47	7 x4½	8	20x 8½	42	220	212 bu.	12.00	15.25	27.00	6.60
48	6 x4	7	24x 7½	40	251	160 bu.	12.35	15.60	29.35	7.34
49	7 x4½	8	24x 8½	40	251	240 bu.	12.75	16.00	29.75	8.04
50	8 x5	9	24x 9½	40	251	330 bu.	13.00	16.25	30.00	8.76
51	9 x5	10	24x10½	40	251	360 bu.	13.50	16.75	30.50	11.13

Complete Elevators

PLAIN BEARING ELEVATORS

Net Prices Based on Complete Elevators 40 Feet from Center of Head Pulleys to Center of Boot Shaft with Price Per Foot for Longer or Shorter Lengths. Made of Clear Poplar Lumber, Surfaced on both Sides. Complete Ready to Install.

Salem buckets are attached to cotton belting with bolts and are spaced 16 inches apart. Legging is not Assembled.

Prices do not include shaft on head pulley, head bearing or collars. See page 15 for pulleys.

SIZES AND NET PRICES—LEGGING NOT ASSEMBLED

When Legging is Desired Completely Assembled, Add 20 Per Cent. to Net Prices

81N1610

For Shafting
and Collars
for Elevators,
see Page 20

We make an
extra charge
of 20% per foot
for shafting
less than 6 feet
in length.

Elevator Number	Size Cups		Width Belt, Inches	Size Head and Boot Pulley, Inches	Net Prices, with 3-ply Cotton Belt and Salem Cups attached. Style M	Add or deduct per foot for longer or shorter length.	Net Prices, with 4-ply Cotton Belt and Salem Cups attached. Style L.	Add or deduct per foot for longer or shorter length.
	Width Projection							
53	3 x3	3½	16x 4		\$67.00	\$1.00	\$69.15	\$1.65
54	3½ x3	4	16x 4½		70.65	1.10	72.95	1.15
55	4 x3	4½	16x 5		76.45	1.20	78.75	1.25
56	3 x3	3½	18x 4		68.30	1.00	70.50	1.05
57	3½ x3	4½	18x 4½		72.00	1.10	74.50	1.15
58	4 x3	4½	18x 5		78.20	1.20	80.60	1.25
59	4½ x3½	5	18x 5½		81.90	1.30	84.35	1.35
60	5 x4	5½	18x 6		87.00	1.40	89.65	1.45
61	6 x4	7	18x 7		96.60	1.50	100.25	1.55
62	4 x3	4½	20x 5		80.25	1.20	82.75	1.25
63	4½ x3½	5	20x 5½		84.00	1.30	86.60	1.35
64	5 x4	5½	20x 6		90.40	1.40	93.00	1.45
65	5½ x4	6	20x 6½		93.30	1.50	96.25	1.55
66	6 x4	7	20x 7½		97.60	1.50	101.35	1.55
67	7 x4½	8	20x 8½		107.50	1.60	111.50	1.65
68	6 x4	7	24x 7½		101.75	1.50	105.50	1.55
69	7 x4½	8	24x 8½		112.15	1.60	116.40	1.65
70	8 x5	9	24x 9½				130.00	2.10
71	9 x5	10	24x10½				145.00	2.35

GUMP'S BALL BEARING ELEVATORS

FOR ELEVATING STOCK TO OR FROM FEED MILLS, CLEANERS, SCALES, HOPPERS, BINS, ETC.

Shipped Assembled—Ready for Use

Made of clear Poplar lumber, finished throughout in natural color. Put together with screws. Iron work painted black; wood work in natural color, highly varnished.

The head and boot shafts run on ball-bearings, which fit in an adjustable frame. The up leg is fitted with door to allow operator access to belt and cups. The boot is fitted with slide bottom so that it can be thoroughly cleaned out.

In ordering state if elevator is to be used for flour or grain.

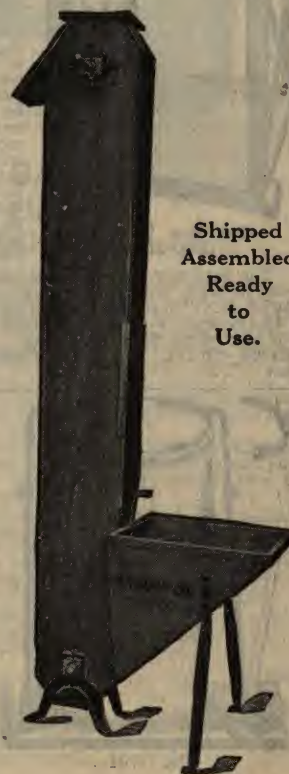
Capacities based on cups two-thirds full. Shipping weight given is without hopper. 81N1618 SIZES AND NET PRICES

No.	Size, Cups, Inches	Width Belt, Inches	Size of Drive Pulley, Inches	A			Price Hopper, Extra
				6 Foot	B	C	
72	2 1/2 x2 1/2	3	12x3	\$58.46	\$62.10	\$63.80	\$12.00
73	3x3	3 1/2	12x3	60.26	62.94	65.56	12.00
74	3 1/2 x3	4	12x3	62.02	64.64	67.33	12.00
75	4x3	4 1/2	12x3	63.80	67.33	70.88	12.00
76	4 1/2 x3	5	12x3	67.33	70.88	75.14	12.00
77	5x4	5 1/2	12x3	70.88	74.43	79.38	12.00

Capacities and Weight. Sizes given are to center of shaft dimensions.

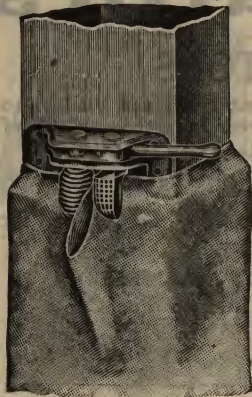
No.	Grain, Bushels Per Hour	Flour, Pounds Per Hour	Shipping Weight, 10 Foot	
72	40	1,000	190 lbs.	Speed on grain—110 to 120 R. P. M.
73	60	2,000	200 lbs.	Speed on flour—112 to 115 R. P. M.
74	65	2,500	210 lbs.	For grain, hopper is to be attached like cut.
75	80	3,000	225 lbs.	For flour or meal, hopper is to be attached on
76	85	3,500	250 lbs.	opposite side—viz.: The down leg.
77	160	6,500	360 lbs.	

Shipped
Assembled
Ready
to
Use.



"Bull Dog" Bag Holders and Bag Fillers

"BULL DOG" BAG HOLDERS



Regular
Stationary
Type



Special
Swivel
Type

Save Your Time, Money, Hands, Arms and Your Clothing, by Using "BULLDOG" Bag Holders on Your Bagging Spouts.

WILL NOT TEAR THE BAGS--NEVER LETS GO!

The "BULL DOG" Bag Holder has no protruding sharp points (such as nails, hooks, pins, etc., as generally used) to lacerate the operator's hands, arms and fingers and to tear his clothing. It has no protruding points to hold the bag to the spouts, which tend to tear the sack when it begins to fill.

The operator can attach a bag to a spout equipped with a "BULL DOG" Bag holder quicker and easier than by any other device or bag holder that has ever been devised. The regular stationary "BULL DOG" Bag holder consists of four corner irons, a holding mechanism which contains a knurled holding mechanism on an eccentric that compresses the bag attached against a steel coil spring, and a set of screws for fastening to spouts.

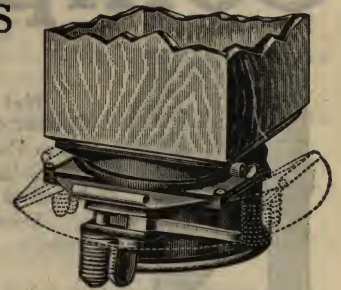
All parts are made of cast iron or cold rolled steel. Can be applied to your spouts in less than five minutes by any one. For any size spout 8 inches or over.

Patent (Reg. U. S. Pat. Office.)
Fig. 1702.

The special swivel "Bull Dog" Bag Holder shown on the right has the same holding mechanism as the regular "Bull Dog" described above, but it is equipped with a cast iron frame so that the handle may be turned in any position. It is also fitted with a steel slide and when the bag is full the slide may be closed and cut off the supply of grain. A flange all around the rim of the iron frame takes the place of the four corner irons on the regular type.

The swivel type "Bull Dog" is recommended for places where it is necessary that the bags may be put on or taken off from any side of spout. THE "BULL DOG" NEVER FAILS. READ THE LETTER IN THE LOWER RIGHT HAND CORNER OF THIS PAGE. THE "BULL DOG" WILL BE SURE TO PLEASE YOU TOO.

81E1702 Regular Stationary Type, for attaching to wood spouts. Price net, each \$ 2.75
81E1703 Special Swivel Type. Price net, each 11.50



WITH FEED SLIDE
(Pat. Reg. U. S. Pat. Off.)
Fig. 1703.

"BULL DOG" BAG FILLER

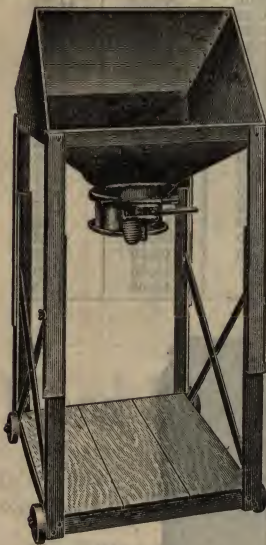
Will Keep From One to Five Men Busy.

Will Handle all Kinds of Grain, Flour, Sweepings, Potatoes, Onions, Etc.
One of These Fillers Should Be on Every Floor of the Mill, to Handle Sweepings, Choke-Ups, Etc.

Swivel "BULLDOG" Bag Holder Enables Bags to Be Attached From Front or Back.

The "BULL DOG" Bag Filler meets a great need for filling bags from cars, bins or removing sweepings, choke ups, etc. It will handle any kind of grain or flour, shelled corn, potatoes, apples, etc.—in fact, it will handle practically everything except ear corn or baled hay. It will keep from one to five men busy. With it one man can fill bags faster and with less effort than two men can when one is required to hold the bag. With one man to attach the empty and remove the filled bags, they may be filled as fast as two men can shovel. Fitted with reversible hopper cover allowing it to be filled from either side.

The "BULL DOG" is made entirely of metal except for the wood platform. It has a large steel hopper, which is easy to scoop into and it is equipped with a swivel "BULL DOG" Bag Holder with a steel slide as shown in the illustration. This enables from one to five men to operate the device, as the bag holder, being on a swivel may be turned with the lever in the front, so that one man can attach, fill and remove the bags from the front—but, when two or more men are working together, one man may attach and remove the bags from the back. The slide in the holder enables him to put on and take off the bags without interfering with those shoveling and they may proceed without stopping.



(Pat. Reg. U. S. A.)
Fig. 1705.

The bags may be put on or taken off in an instant—no nails or hooks to catch and tear the bags or clothing, and once attached the "BULL DOG" never lets go until the lever releases the bag.

Heavy angle steel legs adjustable to any size grain bags. Equipped with four wheels for easy moving.

81E1705 "BULL DOG" Bag Filler, complete as illustrated. Price net \$40.00



Showing One Man removing the Filled Bags and Putting on the Empty Bags, While Two Men Fill Them.



Fig. 1704

"Mosher" Bag Holders

Adapted to all sizes of bags, from a 48-lb. flour sack to a 6-bushel gunny bag. **Does not tear the bag.**

It is well made; malleable iron jaws. wrought iron pipe standards, steel spring, and weighs only 20 lbs. It pays for itself in a month's time.

81E1704. Price, Mosher Bag Holder, each, only \$4.75

The "BULLDOG" Always Pleases

Sheboygan Falls, Wisconsin.

Oct. 30, 1919.

B. F. GUMP CO.,

431 So. Clinton St., Chicago, Ill.

Dear Sir:—

Will you please send us at once, by parcel post, one "BULL DOG" Bag Holder. This makes the tenth of the bag holders we have in use here and the fact that we keep on ordering them ought to be sufficient indication of what we think of them.

Very truly yours,
E. GONZUEBACH,
Falls Roller Mills Co.

GRAIN SAMPLERS, TESTERS AND BAGGERS

GRAIN SAMPLERS

Brass Tube and Brass Plunger

Made in three sizes, for cars or wagons. The grain sampler shown herewith consists of two polished brass tubes, one fitted inside, the other and having openings matching each other.

By turning the handle of the inner tube it revolves, thus opening and closing the holes. With the holes closed the sampler is thrust into the grain until it reaches the bottom of the wagon or car. The handle then being turned, the holes are opened and the sampler filled by grain taken from full depth of the load. The sampler is then turned on end and the sample secured.

This device effectually secures protection against frauds from the "doctored" grain.

81E590 Net Price

No.	Diam. Inches	Length Inches	Net Price
2	1 1/4	44	\$7.50
3	1 1/2	44	8.50
4	1 3/4	52	9.50

"Emerson" Official Elevator Wheat Tester or "Kicker"

Determines The Exact Amount of Dockage in Each Sample

This Machine eliminates all guess work in determining the actual amount of dockage in each sample of wheat and saves all of the wheat and at the same time removes all of the small foul seeds and dirt.

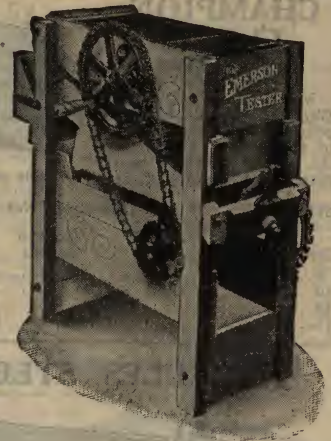
It is used by the United States Department of Agriculture, at Washington, D. C., in its Grain Standardization Department. Many of the Grain Inspection Departments of the various states as well as a great many large mills use this tester exclusively.

The sample after being run through the tester, is divided into three parts. The wheat passes through the riddle, over the screen and is discharged into a box by itself. The oats and large foul seeds cannot pass through the riddle and are discharged over the riddle into a separate box. The dirt and small seeds drop through the lower screen into a drawer below.

The separation is perfect. Not a kernel of wheat is mixed with the oats. You leave the wheat without a kernel of oats in it and the dirt and small seeds are in a separate compartment. By simply weighing the different separations the exact amount of each is determined, eliminating all possibility of guess work.

DIMENSIONS: Height 34"; Length 30"; Width over all 18".
Shipping weight 85 pounds.

81F598 Price, complete.....\$55.00



HAND CONVEYOR BAG FILLER

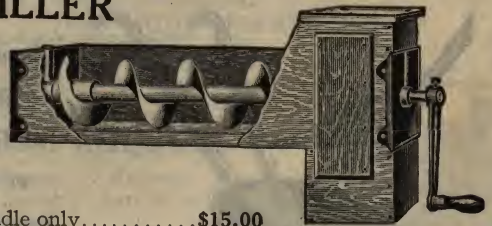
The illustration shows a simple and convenient device for rapidly filling bags by hand. It takes up little room, and prevents flour and like material from wasting. If the bin is deep, not more than 18 inches of the length of the conveyor should be subject to the direct pressure of the contents of bin, for the weight will cause the conveyor to turn harder than is desirable.

It is well built, handsomely finished and durable.

81E1700

NET PRICES

Packer, complete as shown in cut.....\$20.00 Conveyor and Handle only.....\$15.00



"IDEAL" ELEVATOR AND BAGGER Furnished With Ball-Bearing Elevator Equipped With or Without "BULLDOG" Bag Holders.



When Equipped with "BULL-DOG" Bag Holders as Shown in The Illustration -- This Makes the Most Efficient Elevator and Bagger on the Market. Ball-Bearing Elevator Insures Light Running.

1—Gump's ball-bearing elevator with 5 x 4 cups and steel hopper; 1-6-inch x 10 ft. steel conveyor; 4 spouts with cut-off slides and regular "BULL-DOG" Bag Holders complete with pulley and conveyor drive as shown in the illustration. Size of drive pulley 12 x 4". Speed of drive pulley 115 R. P. M.

81E1744. Price net with Bag Hooks.....\$125.00

81E1745. Price net with "BULL-DOG" Bag Holders.....135.00

We can furnish any size elevator and bag filler to meet all requirements. Mention height of elevator and length of conveyor when writing and capacity required. Prices on application.

The outfit illustrated is a convenient apparatus for filling bags, especially where only one man is employed in doing the work, as the material after filling one bag can pass on to the second, third and fourth bag, thus giving the operator ample time for changing bags without spilling any of the material on the floor.

The hopper at the elevator boot may be spouted into direct and is large enough for dumping into from sacks if desired.

The elevator is built in any height or any size to suit the conditions for which it is to be used and the conveyor is made as large and as long as conditions require.

One belt drive operates the entire outfit, making it very convenient to install. Each of the spouts is fitted with our patented "BULL-DOG" Bag Holder and a cut-off slide. We also build them without any bag holder using ordinary sack hooks.

This outfit is regularly furnished as follows:

SCOOPS, GRAIN BASKETS, SAWS, ETC.

CHAMPION FLOUR SCOOPS

Made of Sheet Steel. Wrought Iron handle, placed in the center instead of at the end, distributes the weight evenly, thus making the handling of material easier and quicker.



81E462 Sizes and Net Prices		
Size	Length Inches	Price, each Sheet Steel
8.....	8.....	\$.85
10.....	10.....	.95
12.....	12.....	1.15
14.....	14.....	1.40

HERCULES STEEL SCOOPS



Our Hercules Steel Scoop is made of planished sheet steel securely riveted, strong and durable. Will outwear and is much more convenient to handle than the ordinary "D" handle scoop.

Made in ½ and one bushel sizes.

Net Prices

81E464 ½ bushel.....	Each \$2.25
81E466 1 bushel.....	Each 2.75

CLIMAX SCOOP TRUCK



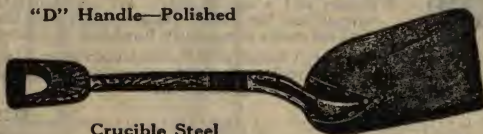
Capacity
2½ Bushels
of Grain
or 200
Pounds of
Coal

The Climax Scoop Truck is a wonderful time and labor saver. It is a scoop on wheels, designed to increase the efficiency from six to ten-fold of a man unloading coal, grain, etc., from ends of box cars or bins. It will operate satisfactorily in moving material where the discharge is at floor level or from an inclined runboard two or three feet above the floor level. The BOWL is pressed No. 10 gauge steel with a corrugation to form a housing for the wheels and a seat for the handles. A practicable and durable scoop that will pay for itself many times over in time and labor saved. Weight about 50 lbs.

81E450 Net price, each.....\$17.50

Grain Trimmer's Scoop

"D" Handle—Polished



Crucible Steel

A convenient size scoop for trimming grain or filling bags.

81E428 Net Price	
Size 3. Size 11x15½ inch, each.....	\$1.95

Sterling Hack Saw

Iron Frame

81E2072

For 9-inch Blades

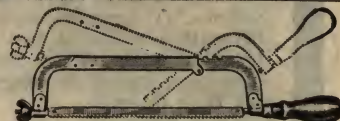
Price each.....\$0.30



Adjustable Frame

8 to 12 inches.

Finest and most serviceable frame made.



81E2074 Net Price, highly polished, each.....\$0.75

81E2076 Net Price, Nickel Plated, each.....\$1.00

Sterling Hack Saw Blades

Regular Teeth, 14 to the Inch, for Sawing Solid Steel or Iron

81E2078 Net Prices				
Size, in.....	½x8	½x9	½x10	½x12
Per doz.....	\$0.65	\$0.70	\$0.80	\$0.95

Fine Teeth, 24 to the Inch, for Sawing Brass, Copper, Pipe and Tubing.

81E2080 Net Prices				
Size, in.....	½x8	½x9	½x10	½x12
Per doz.....	\$0.70	\$0.75	\$0.80	\$1.00

Round Bottom Galvanized Fire Buckets

Stenciled "Fire Bucket"

Made of Heavy Galvanized Iron. Nested, 1 dozen in bundle. The round bottoms prevent them from being used for purposes other than Fire Protection.



81E432 Net Prices				
No.	Capacity Quarts	Size, Inches	Net Price per Dozen	Net Each
212	12	11 x10¼	\$3.85	\$0.40
214	14	11½x11½	4.25	.45

Galvanized Grain Baskets



Style 11

Side Handles
Corrugated
Bottoms

Note.—No. 11 Basket is graduated for ½, 1 and 1½ pecks. All sizes packed ½ dozen in bundle.....



Style 15 and 16

81E434 Sizes and Net Prices				
Style	11	15	16	
Capacity, bushels.....	½	1	1½	
Size, inches.....	13¾x9	17¾x11½	20x13¾	
Net Price, dozen.....	\$8.00	\$11.50	\$15.00	
Net Price, each.....	.80	1.15	1.50	



Standard Grain Measures

All Galvanized Throughout
• Side Handles

Graduated for ½, 1 and 1½ pecks. Capacity ½ bushel, size 12½x10¾ inches.

81E436	
Net price, dozen.....	\$7.50
Net price, each.....	.75
Packed ½ dozen in crate.	

Grain Scoops

"D", Handle—Polished



Crucible Steel

A larger size, flaring mouth scoop, designed for shoveling grain of various kinds.

81E438 Net Price	
Size 10. Size 14½x18¾ inches, each.....	\$2.00

Necessary Accessories for Mill or Elevator

Gump's Respirator Protects the Nose and Mouth



Has an improved automatic valve which compels a positive action in excluding dust, fumes or gases.

Can be worn constantly without inconvenience.

The heated air between face and cover is automatically exhausted and renders wearing it a comfort and pleasure.

A fine damp sponge is the best known filter for separating impurities from the air, and this, in connection with the automatic valve insures perfect protection and ventilation. The sponge can be removed and rinsed in water to clean it and replaced in one minute. The wearer will be readily convinced of the great value of the Protector when he sees what the sponge has absorbed.

The automatic valve is so simple that it cannot get out of order and will always act, no matter what position the wearer assumes at his work.

This Protector is made of the best white rubber, and is easily kept clean. It bends to fit any face perfectly and is fastened to the head with an adjustable elastic band.

Net Price

81E400—Gump's Rubber Dust Protectors, each\$1.20

Postpaid anywhere in the United States for above price.

Cover's Rubber Goggles

The Goggles fit well with the Respirator; they are made of a single piece of pure rubber and are indestructible. The lenses are clear glass and can be removed, cleaned and replaced in a moment. The cushion is a curved flange extending downwardly and outwardly from the lens portion. It has no filthy pads and is easily kept clean. Used largely in Foundries, Fire Departments, Chemical Works, and by Grinders, Polishers, Threshers, Automobilists, etc. Fits anybody, are air tight, but furnished ventilated if desired. Should be air tight for use in irritating gases, lime, etc., but ventilated when used in most other places. We will send ventilated goggles unless otherwise ordered.

81E402—Cover's Rubber Goggles, per pair (postpaid)\$1.15



Durant Flour Tally



These well known machines, applied to packers, show the product at a glance, in figures that can be absolutely relied upon. Furthermore, they furnish a check against shipping errors and do away with the slow

and doubtful hand count. By the introduction of very heavy all steel parts these machines have now been so strengthened that breakage and trouble are unheard of; made more adaptable to packer use than ever before.

Net Prices

81E404—No. 1, 4 dials (Counts 9,999)\$5.50

No. 2, 5 dials (Counts 99,999) 6.50

Guarantee—Every Durant Tally is warranted to be free from imperfections in material and workmanship for two years.

Lever Attachment is in very general use on flour and bran packers where barrels or sacks of one size are filled.

Of the 20,000 Durant Tallies in use, over two-thirds of them are equipped with Lever Attachments.

TALLYS WITH LEVER ATTACHMENTS

No. 1, 4 dials (Counts 9,999)\$7.50

No. 2, 5 dials (Counts 99,999) 9.00

Durant Pocket Hand Tally

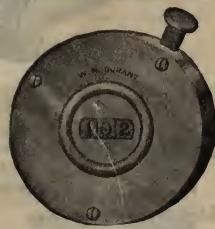
The Perfect Counting Machine---Guaranteed Accurate

Used by Railroads, Telegraph and Steamboat Men, Lumbermen, Cattlemen, Headwaiters and in fact, anyone desiring an accurate count. Can be set to zero at will; very simple in construction, durable and satisfactory.

Net Price

81E406—No. 3, 3 dial, counts to 999, each\$4.00

No. 4, 4 dial, counts to 9,999, each 5.00



The "Fire-Gun" Fire Extinguisher

The Only Quart Fire-Extinguisher Favorably Reported Upon by All Insurance Companies.

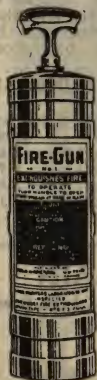
A Hand Fire Extinguisher, which puts out fires before they become big ones. Effective where water is useless. The only fire-fighting device with a real double-acting pump. Always ready for use—does not stick.

Fire gun fluid will not deteriorate; is a non-conductor of electricity; does not freeze at 50° below zero, and forms a blanket of non-combustible gas, which smothers the flames.

81E408—No. 1 Fire Gun, capacity 1 quart. Weight, 7 lbs. Complete with liquids.

Each\$8.00

Extra charges, 1 quart..\$1.50.



Combination Sprayer and Fire Bucket

An "Ideal" Combination Pump Suitable for Many Purposes
Bucket Capacity Six Gallons

This combination sprayer and fire pump is worth many times its cost. It will do all the spraying, whitewashing, cold water painting and window washing, as well as affording an excellent fire protecting outfit.

For spraying or whitewashing it will meet all requirements satisfactorily as it throws a strong, steady stream or spray as desired.

FOR FIRE PROTECTION it is economical and quick working. It throws an unbroken stream forty feet from the nozzle, beginning immediately when the pump is operated. It enables the operator to play a steady stream on a fire not over 40 feet away.

THE PUMP is a powerful double acting pump working on both the up and down stroke. It has a heavy brass cylinder, heavy brass plunger, brass ball valves and a sure-grip handle. It should last a lifetime. **IT IS ALSO EQUIPPED** with a 3-foot hose and two nozzles, one for solid stream and one for spraying.

THE TANK is made of heavy galvanized steel with cover for filling and handle for carrying. It has a capacity of 6 gallons, painted red. Shipping weight, about 15 pounds.

81E410—Fire Bucket and Tank Sprayer, complete.

Price, each.....\$6.25



ELEVATOR CUPS, BOLTS AND SUPPLIES



SALEM CUPS

The most popular style of cups on the market for mill and elevator. Most improved and up-to-date design. All the buckets 16 ga. and lighter, are spot welded. Replaces rivets, strengthens the bucket, saves the belt and discharges perfectly.

Odd sizes, also Galvanized Cups furnished. Prices on application.

81N1584

SIZES AND NET PRICES

Size Bucket Inches	Regular Gauge for Mill and Elevator Work	Medium Gauge for Ear Corn and Medium Duty	Center to Center Holes Inches	No. Holes
Price, Each	Gauge	Price, Each		
2½ x 2½	18	\$0.06	7/8	2
3 x 2½	18	.06	1 1/8	2
3 x 3	16	.06	1 3/8	2
3½ x 2½	16	.06	1 5/8	2
3½ x 3	16	.06	1 7/8	2
4 x 3	16	.09	2 1/8	2
4 x 3½	16	.09	2 1/4	2
4½ x 3	16	.09	2 3/4	2
4½ x 3½	16	.09	2 5/8	2
5 x 3½	16	.12	2 3/4	2
5 x 4	16	.12	3 1/8	2
5½ x 4	16	.13	3 3/8	2
6 x 4	16	.14	3 5/8	2
7 x 4½	16	.18	4 1/8	2
8 x 5	16	.23	4 3/8	3
9 x 5	16	.24	4 5/8	3
10 x 5½	16	.29	4 7/8	3
10 x 6	16	.33	4 7/8	3
11 x 6	16	.38	4 7/8	3
12 x 6	16	.42	4 7/8	3
14 x 6	16	.48	4 7/8	4
12 x 7	16	.54	5 1/8	4
14 x 7	16	.57	5 1/8	4
16 x 7	16	.80	5 1/8	5

STEEL GRAIN BUCKETS

Regular Sizes

81E1581

SIZES AND NET PRICES

Width on Belt	Projection	Net Price, Each	Width on Belt	Projection	Net Price, Each
5	x 4	\$0.23	9	x 5	\$0.37
5½	x 4	.25	10	x 5½	.48
6	x 4	.26	11	x 6	.54
7	x 4½	.32	12	x 6	.56
8	x 5	.35	14	x 6	.60

Larger sizes furnished. Prices on application.



STEEL CORN BUCKETS

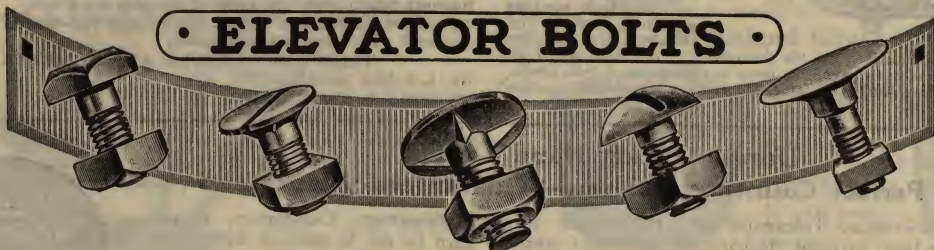
They are made similar to the Steel Grain Bucket, but of extra heavy material, and for the work for which they are intended they have no superior.

81N1580

SIZES AND NET PRICES

Width on Belt	Projection	No. of Bolt Holes	Capacity	Net Price, Each
11	x 7	4	3½ quarts	.79
12	x 7	4	4 quarts	.82
13	x 7	4	4½ quarts	.86
14	x 7	4	5 quarts	.88
15	x 7	4	5½ quarts	.90
16	x 7	5	6 quarts	.93
18	x 7	5	6½ quarts	1.00

• ELEVATOR BOLTS •



SQUARE HEAD BOLTS

For attaching Elevator Buckets to Link Belting.

NET PRICE—PER HUNDRED

81N1586

Size Bolt	Per 100
¼ x ¾	\$.85
¼ x 1	.85
½ x ¾	1.00
½ x 1	1.00
¾ x ¾	1.20
¾ x 1	1.20

RELANCE ELEVATOR BOLTS

These bolts have slot in head for screw-driver and are corrugated on under side, making the best Elevator Bolt on the market.

NET PRICES PER BOX

(100 Bolts and Nuts to a box)

Carried in stock in following sizes:

81N1587			
$\frac{1}{4}$ x $\frac{1}{2}$	\$0.75	$\frac{1}{4}$ x 1.....	\$0.80
$\frac{1}{4}$ x $\frac{3}{8}$.....	.75	$\frac{1}{4}$ x $1\frac{1}{4}$.....	.90
$\frac{1}{4}$ x $\frac{3}{4}$.....	.75	$\frac{1}{4}$ x $1\frac{1}{2}$	1.00
$\frac{1}{4}$ x $\frac{7}{8}$.....	.80		
Any one size—less than 100 bolts, at			
each			.01

Any one size—less than 100 bolts, at each. .01

BUTTON HEAD BOLTS

For attaching Elevator Buckets to Link Belting.

NET PRICE PER HUNDRED

81N1588

Size Bolt	Per 100
¼ x ¾	\$.60
¼ x 1	.65
½ x ¾	.75
½ x 1	.80

NORWAY FLAT HEAD ELEVATOR BOLTS

These bolts are forged from best quality Norway Iron. Head is flat and large in diameter, affording a great bearing surface on the belt, preventing the bolt from pulling through.

NET PRICE—PER HUNDRED

81N1589			81N1589		
Size	Bolt	Per 100	Size	Bolt	Per 100
$\frac{1}{4} \times \frac{3}{4}$	\$1.10	$\frac{5}{8} \times 1$	.....	\$1.50
$\frac{1}{4} \times \frac{7}{8}$	1.15	$\frac{5}{8} \times 1\frac{1}{4}$	.....	1.60
$\frac{1}{4} \times 1$	1.15	$\frac{5}{8} \times 1\frac{1}{2}$	.....	1.70
$\frac{1}{4} \times 1\frac{1}{4}$	1.20	$\frac{3}{8} \times 1$	.....	2.00
$\frac{1}{4} \times 1\frac{1}{2}$	1.25	$\frac{3}{8} \times 1\frac{1}{4}$	.....	2.15
			$\frac{3}{8} \times 1\frac{1}{2}$	.....	2.30



MALLEABLE IRON SOCKET WRENCHES

Malleable iron socket wrenches are almost indispensable for attaching elevator buckets to belting. They make it easy to get at and quickly tighten the bolts. For ¼ inch bolts, taking ½ by ½ nut. Length 8 inches.

81E1595 Malleable Iron Sockets Wrench each. \$0.50

LEATHER WASHERS



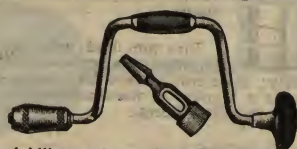
Leather washers are a real protection and are used extensively on Cotton and Rubber Belts.

NET PRICE—PER HUNDRED

81N1591

For ¼-inch bolts	\$.20
For ½-inch bolts	.25

CAST STEEL PLAIN BRACES ½ Inch Steel

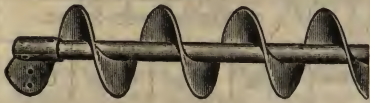


Steel Alligator jaws. Stained hardwood head and handle. A good brace at a moderate price. Nicely finished 8-inch sweep.

81E1596 Cast Steel Plain Brace, each. \$1.50 Complete with Socket for ¼" Bolts.

Conveyor, Distributing Spouts and Supplies

Regular Steel Conveyor



We can furnish Galvanized Conveyor in all sizes. Prices on application.

In ordering please note the following: The Standard lengths given below include the width of one hanger bearing.

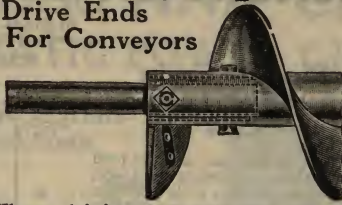
The Net Prices given for Standard, lengths include one hanger, one coupling, the necessary bolts and lining for each standard length.

Drive Ends and Tail Ends are charged for extra.

Proper deductions are made for fittings not wanted, which are included with every Standard length.

Fittings are not furnished with conveyors ordered less than Standard length, but will be charged for extra when desired to accompany conveyor.

Drive Ends For Conveyors



Where driving ends are less diameter than standard, we use shaft to standard diameter and turn the projecting portion. Where driving ends are greater diameter than standard, we use shaft of diameter of projecting portion, and turn about six inches to go into conveyor.

For odd size driving ends we charge for shaft used and labor in cutting off, turning, drilling and fitting same.

Cast Iron Ends For Conveyor Boxes



Style A

This cast iron end for conveyor trough takes the place of a hanger or bearing. It makes a much more rigid bearing for driving ends than a hanger or outside pillow block and costs less, when the labor and material for the foundation for outside bearing is considered. The bearing is babbitted.

81N1564 SIZES AND NET PRICES

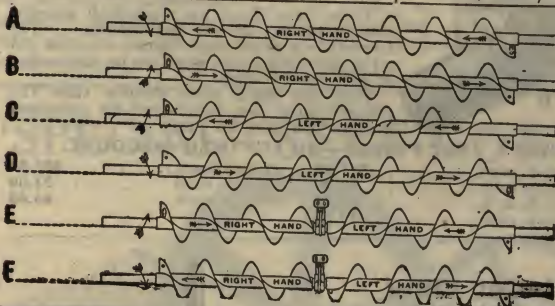
Outside Diam., Ins.	Standard Length, Ft.	Diameter of Gudgeons, Inches	Maximum Capacity per Hour, Bu.	Recommend- ed R.P.M.	Net Price, Per Foot	Net Price, per Standard Length
4	8	1	100	220	\$1.25	\$10.00
5	10	1 1/4	200	210	1.40	14.00
6	10	1 1/2	300	200	1.40	14.00
8	10	1 3/4	750	180	1.75	17.50
9	10	1 3/4	1000	175	1.75	17.50
9	10	2	1000	175	1.95	19.50
10	10	1 1/2	1400	160	2.10	21.00
12	12	2	2000	150	2.25	27.00
12	12	2 1/4	2000	150	3.00	36.00
14	12	2	3400	140	3.00	36.00
16	12	3	5000	130	4.00	48.00
18	12	3	6000	120	4.85	58.00

81N1569 SIZES AND NET PRICES

Projection from Pipe Inches	1-inch Diameter	1 1/2-inch Diameter	2-inch Diameter	2 1/2-inch Diameter	3-inch Diameter
6	\$0.40	\$.68	\$1.08	\$1.66	\$2.46
8	.44	.76	1.20	1.88	2.80
10	.48	.84	1.34	2.08	3.10
12	.50	.92	1.50	2.30	3.42
14	.54	1.02	1.64	2.50	3.74
16	.58	1.10	1.78	2.72	4.06
18	.62	1.20	1.94	2.94	4.40
20	.66	1.28	2.08	3.16	4.72
22	.70	1.36	2.22	3.36	5.04
24	.74	1.44	2.36	3.58	5.36
26	.78	1.52	2.52	3.78	5.66
28	.82	1.60	2.68	4.00	6.00
30	.88	1.70	2.84	4.26	6.36

81N1570 SIZES AND NET PRICES

Diameter Conveyor	Diameter Shaft	Net Price Each
4-inch	1 -inch	\$1.40
6-inch	1 1/2-inch	2.00
8-inch	1 1/2-inch	3.00
9-inch	1 1/2-inch	3.15
9-inch	2 -inch	3.50
10-inch	1 1/2-inch	3.85
10-inch	2 -inch	4.20
12-inch	2 -inch	5.60
12-inch	3 -inch	7.50
14-inch	2 -inch	8.40
14-inch	3 -inch	9.20
16-inch	2 -inch	10.40
16-inch	3 -inch	11.20
18-inch	3 -inch	13.60



How To Order Conveyor

The arrows in the cuts indicate which way the conveyor turns and which way the material is carried.

State whether right-hand conveyor or left-hand conveyor is wanted.

State whether linings and hangers are wanted, and state style of hanger preferred.

State length and diameter of driving end, and if possible order driving ends of standard diameters.

When possible, order conveyors in feet without fractional parts of a foot, and we can fill promptly with stock lengths.

All conveyors made of steel, unless otherwise ordered.

All conveyors shipped right-hand, unless otherwise ordered.

Unless order specifies exact length of pipe, we deduct from length given the width of one hanger bearing.

Steel Distributing Spouts

When ordering, always state the size of buckets which will be used with the spout, or, if possible, give inside measures of discharge spout at head of elevator and size of indicator rod.

6-inch spout is suitable for buckets 6 to 9 inches long.

9-inch spout is suitable for buckets 9 to 12 inches long.

12-inch spout is suitable for buckets 12 to 16 inches long.

Swivel Steel Grain Spouts

Substantial and serviceable. Made of heavy sheet steel, and pivoted in such a manner that they may be turned so as to spout the grain in any direction. The discharge opening is 6 1/2 inches. In connection with these spouts, round steel piping can be used, which makes a very cheap and convenient conducting pipe.

In ordering please give outside measurements of spout to which you wish to attach.

81N1562 Price, each complete with pivot rings and brackets, and with steel hopper to attach to wooden spout, but without gate.....\$7.50



Style 5

81N1557
Sizes
and
Net
Prices

Inside Diam. Spout	Price Each	Center of Rod to Center of Discharge	Top of Hopper to Bottom of Spout	Size Socket for Indicator Rod
6"	\$12.50	30"	33"	3/8"
9"	16.50	36"	41 1/4"	1"
12"	20.75	42"	47"	1 1/4"
14"	24.00	48"	54 1/4"	1 1/2"

Rubber Head Mallets



These mallets are almost indispensable to the miller for tapping spouts, bins, feeders, reels, sifters, etc., in

which any stock may have become clogged. Made of best quality rubber, resilient, and will give long service. Made in two sizes.

81E1628 Size Head 3x2 1/4 inches, each.....\$1.25

81E1630 Size Head 4x2 1/2 inches, each.....1.50

Grain Spouts, Indicator Stands and Turn Heads



Flexible Grain Spout For Loading Cars

These spouts are used to load cars without shoveling and will work where there is little fall from bin. They have chain connections and will turn any angle. Special sizes made to order, any size or any length. In ordering give size of wooden spout to which you wish spout fitted.

Size
No. 3
Ex-
tended

81N1548

SIZES AND NET PRICES

SIZE		Hopper Size Inside Inches	THICKNESS OF STEEL			
Diam. Inches	Lgth. Feet		18 Gauge	16 Gauge	14 Gauge	12 Gauge
6	5	8x 8	\$10.80	\$11.94	\$13.86	\$16.98
	6	8x 8	12.00	13.44	15.60	19.14
	7	8x 8	14.40	16.02	18.66	23.04
	8	8x 8	15.90	17.46	20.40	25.20
8	5	10x10	12.90	14.46	16.56	20.28
	6	10x10	14.40	16.20	18.60	22.86
	7	10x10	17.28	19.38	22.44	27.72
	8	10x10	18.90	21.12	24.48	30.36
	9	10x10	20.40	22.92	26.58	33.00
10	10	10x10	21.96	24.72	28.68	35.70
	6	12x12	17.10	18.96	21.84	26.94
	7	12x12	20.52	22.80	26.46	32.82
	8	12x12	22.38	24.90	28.98	36.00
	9	12x12	24.30	27.00	31.38	39.12
	10	12x12	26.16	29.04	33.84	42.24
12	11	12x12	29.58	32.88	38.40	48.12
	12	12x12	31.44	34.98	40.92	51.24
	6	14x14	19.50	22.02	24.84	31.02
	7	14x14	23.40	26.34	29.64	37.80
	8	14x14	25.50	28.68	32.76	41.34
	9	14x14	27.66	31.08	35.52	44.94
12	10	14x14	29.76	33.42	38.28	48.48
	11	14x14	33.66	37.80	43.44	55.26
	12	14x14	35.76	40.14	46.20	58.68

NET PRICES EXTRA SECTIONS FOR FLEXIBLE SPOUTS

Diameter Spout Inches	THICKNESS OF STEEL				Length Section Adds to Spout
	18 Gauge	16 Gauge	14 Gauge	12 Gauge	
6	\$1.08	\$1.22	\$1.49	\$1.96	9 1/4"
8	1.35	1.55	1.89	2.50	9 1/4"
10	1.69	1.89	2.30	3.04	10 1/2"
12	1.96	2.23	2.63	3.51	10 1/2"

Extra Chain, per foot.....\$0.07 Extra Bolts, each.....\$0.05

SPECIAL HOPPERS ADD 10% TO PRICE

GAUGE INFORMATION

The approximate thickness of U. S. Standard Gauges is as follows:—20 Gauge, 1/32"; 18 Gauge, 3/64"; 16 Gauge, 1/16"; 14 Gauge, 5/64"; 12 Gauge, 7/64"; 10 Gauge, 9/64".

CAST IRON TURN HEADS

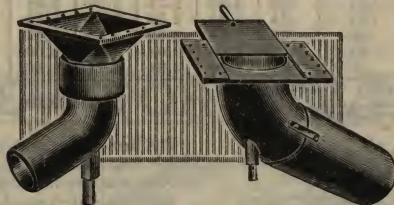
With Hopper.

It will be noticed from the illustration of turn-head spout that the elbow fits over the hopper bottom loosely and is supported by the rod independently of the hopper bottom. This prevents binding in case of unequal settling of the building.

The entire spout is made of cast iron and is very durable.

NET PRICE, INCLUDING HOPPER.

81N1550	No Further Discount.	
7 inch diameter spout.....	Each,	\$14.50
9 inch diameter spout.....	Each,	15.50
12 inch diameter spout.....	Each,	18.00



CAST IRON TURN HEADS

Adjustable Pattern.

Fig. 136

These Turn Heads are made with wrought steel adjustable spouts and cut-offs. The former are a great improvement over the old style, permitting the grain to be discharged at any desired angle.

They are much more durable than the ordinary sheet iron spouts and for continued hard service have no equal.

81N1551 NET PRICES—NO FURTHER DISCOUNT.

6-inch, each.....	\$11.25	12-inch, each.....	\$25.50
8-inch, each.....	12.80	14-inch, each.....	33.00
9-inch, each.....	16.75	16-inch, each.....	45.00
10-inch, each.....	19.25		

WIRE ROPE INDICATORS

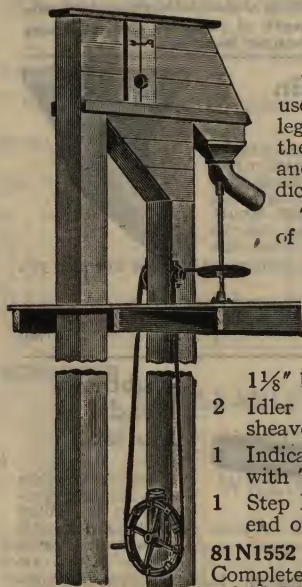
Wire Rope Indicators may be used in connection with elevator legs of almost any height, as they are very positive in action, and sometimes preferable to indicator stands.

The Standard Outfit consists of the following:

- 1 16-inch grooved indicator wheel with 8 numbers and with a take up and handle.
- 1 16-inch grooved wheel, 1 1/8" bore, for indicator Rod.
- 2 Idler Brackets with 5-inch idler sheaves for Wire-Rope.
- 1 Indicator Stub Rod to Connect with Turn Head, 3 feet long.
- 1 Step Box Casting to receive lower end of Indicator Stub Rod.

81N1552

Complete Outfit. Net.....\$16.50
3/16" Wire Rope Required for indicator is charged for extra, at....\$0.05 per foot, net.



INDICATOR STANDS

Our Indicator Stands are of neat design and well made throughout.

81N1553 Net Prices
Complete with 6 to 8 Figures

.....\$12.25
Extra Figures, each..... .30
Rings only, 6 to 10 Figures 5.00

Indicator Hoop and Rod

Including One Hoop with six bin numbers and twelve feet of one-inch pipe, with coupling.

81N1554

Price, Net each.....\$5.50

Indicator Rods

We are prepared to furnish Indicator Rods any desired length; also the necessary couplings.

81N1555

Net Prices

1 -inch Indicator Rods.....	Net per foot,	\$0.25
1 1/4-inch Indicator Rods.....	Net per foot,	.30
1 1/2-inch Indicator Rods.....	Net per foot,	.35
1 -inch Couplings.....	Net each,	.40
1 1/4-inch Couplings.....	Net each,	.50
1 1/2-inch Couplings.....	Net each,	.60

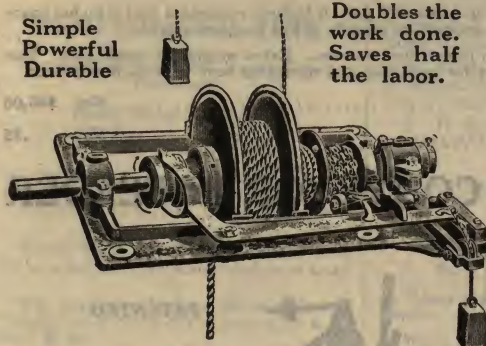


POWER SHOVELS AND CAR PULLERS

"CLARK" AUTOMATIC POWER GRAIN SHOVELS

The Outfit Pays for Itself Many Times in Time Saved—Saves a Great Amount of Hard Work

Simple
Powerful
Durable



Doubles the
work done.
Saves half
the labor.



Hickory Handle for
Wooden Scoop.



Wooden Scoop for Power
Grain Shovel



Pedestal Sheave.



Car Door Sheave, A.



Car Door Sheave, B.



Floor Swivel Sheave.

With a single machine one man can unload a carload of wheat or small grain in fifteen minutes; with a pair of machines, two men can unload a car in five to seven minutes.

The illustration shows one of our Single Clark Automatic Power Shovels. They are generally used in pairs, both being placed on the same shaft, side by side. They are perfectly automatic in action and may be adjusted to throw in or out of gear at any desired point.

The price list includes the following fixtures with each single shovel: One scoop, 35 feet of rope, scoop chain, two horizontal sheaves, one swivel sheave and shaft with sufficient projection to receive driving pulley. An extra charge is made for the driving pulley, the amount depending upon the size required. Speed 60 to 65 R. P. M.

NET PRICE

81F1503	Single Shovel, complete.....	Each	\$150.00
81F1504	Double Shovel, complete.....	Each	300.00

Net Price—Appliances Used with Power Shovels

81F1505	Wooden Scoops, for grain.....	Each	\$5.25
81F1506	Wooden Scoops, for ear corn.....	Each	18.00
81F1507	Wooden Handles (hickory).....	Pair	2.25
81F1509	Scoop Chains.....	Each	1.50
81F1510	Malleable Hooks.....	Each	.50
81F1511	Adjustable Pedestal Sheaves.....	Each	15.00
81F1512	Floor Swivel Sheaves.....	Each	9.00
81F1513	Car Door Sheaves, Style "B".....	Each	6.00
81F1514	Car Door Sheaves, Style "A" double.....	Each	6.00
81F1515	Car Door Sheaves, Style "A" single.....	Each	9.00

"SPECIAL" SELF-CONTAINED CAR PULLER

Equipped with Jaw Clutch.

Simple, powerful, built up strong and heavy to give greatest service under most severe strain. Positive in action and nothing to give trouble.

Fitted with jaw clutch and made with full cast-iron frame. This outfit is shipped complete, ready to set in place. Capacities are based on straight and level track in good condition.

81F1500 Sizes and Net Prices

Size	Pulley Inch.	Speed R.P.M.	Size Rope	Capacity Cars	Net Price
41	20x 7	225	1 1/4	3	\$120.00
42	24x11	225	1 1/2	8	175.00
43	30x13	200	1 3/4	12	275.00
44	36x15	200	2	18	365.00



Friction Clutch and Wire Rope for Pullers Furnished See Index.

We can furnish in connection with our car pullers a drum, driven by a belt from a pulley on the spool shaft, which takes up the slack rope and is under perfect control by means of a hand lever actuating a tightener pulley against the belt.

This device is separate from the car puller itself.

The drum may be carried on floor stands or suspended overhead as desired. Write for prices stating quantity of rope you will use in connection with car puller.

Lead Sheaves

81F1501	Net
Single 12" Sheave..	\$19.50
Single 18" Sheave..	45.00
Double 12" Sheave..	39.00
Double 18" Sheave..	82.50

Car Puller Hooks

81F1502	Net
6"x10" Forged Steel	\$7.50
6"x12" Forged Steel	10.00
6"x14" Forged Steel	15.00

Price on Puller includes Pulley, but not Lead Sheaves or Rope.



"CONSTANT" BALL-BEARING SAFETY MANLIFT

Designed to carry the operators of Grain Elevators and Mills to and from basement to cupola instead of using the stairway, but can be used in warehouses, etc., where only one or two persons use it. The same number of pounds going up must come down as it is a counterbalance elevator. No expense or power to run it. Only a slight pull on the hand-rope is necessary after you step on the foot-lever. You can stop the car at any floor or between floors by removing your foot from the foot-lever.

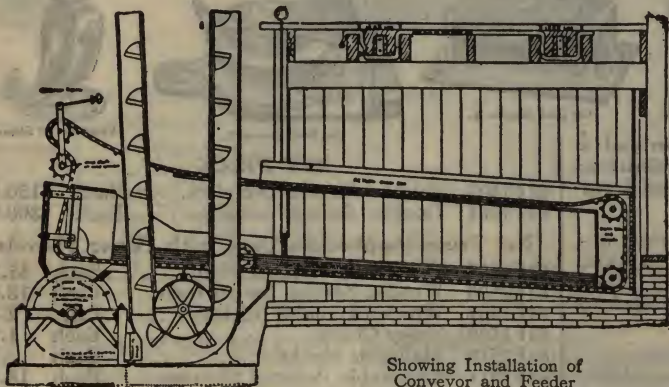
The Brakes are independent of one another and are provided with a set screw to take up the wear. The Sheave has a deep groove and Ball Bearings. The Ropes are $\frac{1}{4}$ inch, best grade. The Safety Catch prevents the car from falling in case of an accident to the rope. The Equalizing Weights are of 5-10-15 and 20 pounds each, thus giving you a range of from 5 to 50 pounds for the car. The counter-weight has a long stem which enables you to add sectional weights to make it heavier when necessary. It weighs 250 pounds and we furnish two 10-pound sectional weights.

The car weighs 70 pounds, has a platform 28 x 30 inches and a space of 6 feet, 6 inches; requires 9 feet 6 inches space from the top floor to top of the sheave and 40 inches from guide support to outside of the counter-weight.

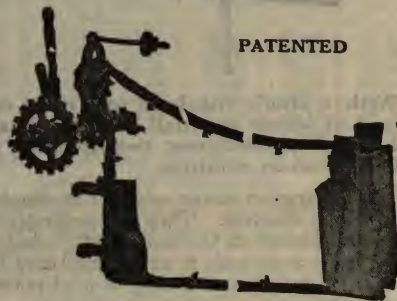
We furnish the car, guides, ropes, sheave and weights as shown in cut, for one man. Extra weights at small cost. You furnish the supports or uprights for the guides. Full instructions for installing and operating sent with each shipment.

81F1670 Complete outfit, 50 foot lift between floors.....Net \$65.00
More or less, per foot.....Net .35

"CONSTANT" CHAIN DRAG GRAIN CONVEYOR AND FEEDER



Showing Installation of
Conveyor and Feeder



PATENTED

Designed for conveying and feeding ear corn automatically from a dump sink, or crib, to the elevator boot, but will handle all kinds of grain. Provided with a clutch sprocket and is started and stopped by shifting the lever. The chain will not carry the grain back as in the old belt conveyor, and it cleans the sink so thoroughly that other grain may follow without mixing.

The work is done on the lower chain, as the top chain returns through a box or covering which keeps the grain from it. By the use of this feeder, the drive-way can be lowered and still retain the same amount of storage under the dump, as the sink is hopped only from two sides at about one-third pitch. The trough is lined with sheet iron 12 in. wide on each side of the steel track, which we furnish.

It is almost impossible to feed a sheller satisfactorily by gravity or drag belt, but with this Feeder a certain amount of corn is taken to the sheller hopper all the time, thus increasing the capacity of the sheller and buckets, saving power and choke-ups.

The grain can be elevated on inclines as high as 8 ft. in 32 ft.

The capacity is gauged by the speed, which is from 35 to 40 revolutions per minute of the Feeder-head shaft for ear corn and from 50 to 75 for small grain, according to the capacity desired. We use No. 26-77 Chain for ear corn and No. 28-77 for small grain, or No. 26-77 for all kinds of grain with double drive. For a double drive, figure an extra clutch sprocket required size, slow speed for ear corn and fast speed for small grain.

NET PRICE

81F1672. This outfit includes the feeder head, shaft, 2 pillow blocks, collar, 10-tooth head driver, back box, shafts and wheels, 14-tooth clutch sprocket, clutch hub and lever, 10 feet track, 25 feet chain No. 26-77 or No. 28-77 and a Universal Tightener.....\$72.50

Extra No. 26-77 Chain, per foot.....\$0.60 Extra No. 28-77 Chain, per foot.....\$0.75 Extra Feeder Track (3 pieces steel) per ft., \$0.40

THE BADGER CAR MOVER

The Never Slip Spur Catches the Outer Edge of the Rail Where It Is Soft. It Gets a Double Grip on the Rail.

Is the latest improved device on the market for handling cars by hand. This mover is provided with never slip spurs, which is the most important feature on a car mover.

It has two square or four cornered spurs which catch the outer edges of the rail where it is soft, and not where the others do on top of the rail where it has become case hardened from wear of the car wheels.

These spurs can be driven out and turned three times and then change ends to be used four times more should the edges get dull.

It is very easy to move a car if your mover does not slip back. By the use of our double spur we get a double hold on the rail and thereby double the resistance which is the most essential part of a mover.

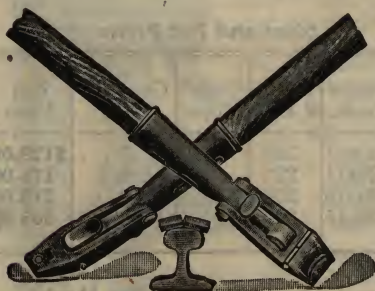
It is also provided with a cam which is pivoted to the end of the main lever in such a way that when the handle is pressed down it lengthens and follows the wheel, and thereby adds an immense rolling power.

It is so constructed that when the handle is raised to push the mover forward it raises the spur from the rail and thus does away with all springs, which are only a nuisance.

The best selected hardwood handle and malleable castings make it light, handy and strong. Weighs 15 pounds.

81E1520—Price, net. Each.....\$6.00
81E1521—Extra Spurs. "......50

Guaranteed for 6 months against defects in workmanship or material



The New
Never Slip

The Old
Always Slip

Perforated Sheet Metal

PERFORATED ZINC

Carried in Stock for Immediate Shipment

Stock Sizes Illustrated

No Margins

No. 10—Zinc in sheets 36x84 inches.
No. 81K734—Price net per lineal foot, 36 inch width (3 sq. ft.).....\$0.90

Pieces cut to size, charges are based on 36 inch width. Minimum charge is \$1.00

For example—A piece 29x24 inches is charged as a piece 36x24 inches, or 6 sq. feet, \$2.40.

No. 81K736—Price net per sheet 36x84 inches—one size of hole only to each sheet.....\$5.00

Instructions For Ordering

1. Make a small diagram of each different size sheet of perforated metal you want. Where a sieve is composed of more than one sheet, make a diagram of each separate piece.

2. Mark on each diagram the length and width in inches, the width of the margins and the exact size of the holes.

3. If the hole is to be oval or oblong, show which way of the sheet you wish the perforations to run.

4. Give the number of pieces you wish of each size.

5. Draw an arrow on each diagram indicating the direction grain passes over sieve.

6. State the kind of metal wanted.

Sieves cannot be returned unless we are at fault.

When ordering from Stock sizes, no margins are recognized, but be sure to state size of hole wanted and if oblong or oval to state which way of the sheet you wish the perforations to run.

Do not fail to give full information.

Made To Order Sizes

No. 26 Gauge Perforated Steel or No. 10 Zinc

In Any Size Pieces Up to 44x126 Inches
(Minimum charge.....\$4.00)

81K738—Price, net. Perforations 10/64 and larger. Per sq. ft.....\$0.65

81K740—Price, net. Perforations 9/64 and smaller. Per sq. ft.....\$0.70

Heavier Gauge Steel Than Standard

24 gauge, per square ft.....\$0.75
22 gauge, per square ft.....\$0.80

We can furnish Wood Frames for Perforated Metal or Wire Cloth, or Patent Corn Sieves, to be used on Separators, Corn Cleaners, etc.

81K744—Price net, per square foot..\$0.75



Seed and Cockle Holes

Stock Sizes Illustrated
(Perforated No. 10 Zinc)
Special Sizes Made to Order
66/1000, 72/1000, 75/1000, 83/1000
85/1000, 88/1000, 8 1/2/64, 9 1/2/64
Furnished in Perforated Steel to order.



Barley Holes

Use Round Holes

9/32", 11/32" or 5/16" are good sizes.

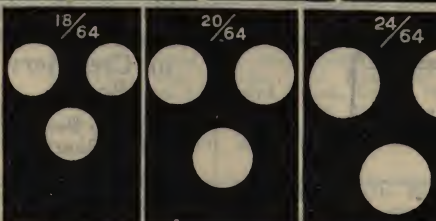
Buckwheat Holes

Use Triangle Holes—All Sizes
Made Special to Order

7/64, 8/64, 9/64 and 9 1/2/64

FLAX AND RICE HOLES

Made up to order



Wheat Holes

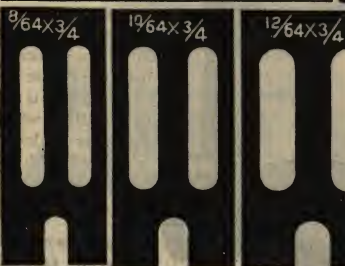
Eleven sizes of perforated No. 10 Zinc illustrated

Also 1/16, 1/8 and 1/4 sizes furnished from stock.

Special sizes made to order

10 1/2/64, 19/64 and 21/64

Perforated Steel of all Sizes
Made to Order

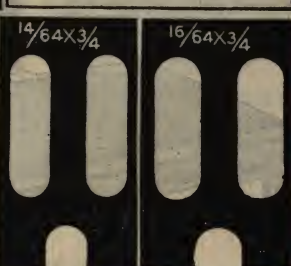


OAT HOLES

Five Sizes Illustrated in Stock in No. 10 Perforated Zinc

Special Sizes Made to Order

9/64x3/8, 9/64x3/4, 10/64x3/8, 10/64x1/2,
10/64x3/4, 11/64x3/8, 12/64x3/8, 12/64x1/2,
12/64x3/4, 14/64x1/2, 16/64x3/8, 16/64x3/4,
16/64x1, 17/64x3/8, 18/64x3/4, 19/64x3/4,
20/64x3/4, 21/64x3/4, 23/64x1, 23/64x1 1/4
Perforated Steel Made to Order—All Sizes



CORN HOLES

Three Sizes Illustrated in Stock—Also Round Holes

1/2, 11/16, 3/4, 7/8 and 1 inch
In No. 10 Perforated Zinc

Special Sizes Made to Order

24/64x1/2, 24/64x3/4, 30/64x27/32,
32/64x11/16, 32/64x1 1/2, 36/64x3/8,
40/64x3/4, 44/64x1

All Sizes Perf. Steel Made to Order



GUMP'S PORTABLE PLATFORM SCALES

Comply with Inspection Laws of Every State.

Every Scale Sealed and Fully Guaranteed.

ACCURATE

SENSITIVE

DURABLE.

"Millers Pride"

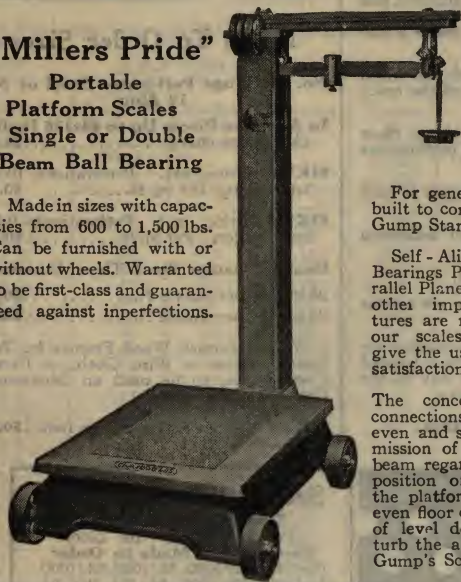
Portable
Platform Scales
Single or Double
Beam Ball Bearing

Made in sizes with capacities from 600 to 1,500 lbs. Can be furnished with or without wheels. Warranted to be first-class and guaranteed against imperfections.

For general use and built to conform to the Gump Standards.

Self-Aligning Ball Bearings Pivots in Parallel Planes, and many other important features are reasons why our scales invariably give the user a lasting satisfaction.

The concentric lever connections afford an even and steady transmission of load to the beam regardless of the position of weight on the platform. An uneven floor or frame out of level does not disturb the accuracy of a Gump's Scale.



81E1731.

SIZES AND NET PRICES

Size	Capacity Pounds	Platform Inches	Net Price, Single Beam, with Wheels	Net Price, Single Beam, no Wheels	Net Price, Double Brass Beam, with Wheels
601	600x $\frac{1}{2}$	16 $\frac{1}{2}$ x24 $\frac{1}{2}$	\$21.50	\$20.00	\$25.80
801	800x $\frac{1}{2}$	17 x25	24.80	23.30	29.20
1001	1000x $\frac{1}{2}$	18 x26	28.40	26.90	33.60
1201	1200x $\frac{1}{2}$	18 $\frac{1}{2}$ x26 $\frac{1}{2}$	32.00	30.50	37.50
1501	1500x $\frac{1}{2}$	18 $\frac{1}{2}$ x26 $\frac{1}{2}$	36.00	34.50	42.00

Extra for Bag Rack on all sizes, \$3.50.

"Reliable" Grain Scales

Single, Double or
Weightless Beam
Plain Bearing

Made in sizes with capacities from 1,000 to 1,800 lbs. Furnished with or without wheels. Especially designed for flour mills, feed stores, etc.

Built heavy, strong and with a large roomy platform.



Has a large platform and is built from heavy material to withstand severe strain and heavy duty. In ordering state whether single, double or weightless beam is desired.

81E1734.

SIZES AND NET PRICES

Size	Capacity Pounds	Platform Inches	Net Price, with Wheels	Net Price, no Wheels
59	1000x $\frac{1}{2}$	32x42	\$53.40	\$54.40
60	1200x $\frac{1}{2}$	33x43	62.40	58.40
61	1800x $\frac{1}{2}$	33x43	69.50	65.60

Extra with double brass beam, each.....\$3.50
Extra with double weightless brass beam, each.....6.00

"Always Ready"

Weightless
Double Beam
Platform Scales
Ball Bearing

Made in sizes with capacities from 600 to 1,200 lbs.

Furnished with double beam only, with or without wheels. A strong reliable scale which never fails to please.



The "Always Ready" type of scale is of the same general construction as the "Miller's Pride" except is equipped with a double, weightless beam mounted above the cap. There are no weights to lose and the beam registers full capacity of scale.

The upper bar is marked in $\frac{1}{2}$ pound marks to 100 pounds, and the lower bar is graduated and notched in 100-pound notches to the full capacity.

81E1732.

SIZES AND NET PRICES

Size	Capacity Pounds	Platform Inches	Net Price, with Wheels	Net Price, no Wheels
603	600x $\frac{1}{2}$	16 $\frac{1}{2}$ x24 $\frac{1}{2}$	\$30.80	\$29.30
803	800x $\frac{1}{2}$	17 x25	33.20	31.70
1003	1000x $\frac{1}{2}$	18 x26	36.00	34.50
1203	1200x $\frac{1}{2}$	18 $\frac{1}{2}$ x26 $\frac{1}{2}$	38.40	36.90

Extra for Bag Rack on all sizes, \$3.50.

"Always Ready" Cheese Factory or Creamery Scales

Three Beam
Ball Bearing

Made in size with capacities from 710 to 1,110 lbs.

Made also in five beam with capacities from 1 to 600 lbs. Furnished with or without wheels.



All figuring is eliminated with this scale. The weighing beam is made up of three bars, the upper bar is graduated in $\frac{1}{2}$ lb. marks to 100 lbs.; the center bar for handling tare is marked to 100 lbs.; while the third bar or lower bar is marked with 100 lb. notches to the full capacity.

You can read a beam on top of the cap much easier than under it.

81E1738.

SIZES AND NET PRICES

Size	Capacity Pounds	Platform Inches	Net Price, 3 Bar Beam, with Wheels	Net Price, 5 Bar Beam with Wheels
601	710	16 $\frac{1}{2}$ x24 $\frac{1}{2}$	\$40.80	\$49.50
804	910	17x25	44.80	.....
1004	1110	18x26	48.80	.....

Single and Double Beam Dormant Warehouse and Hopper Scales

GUMP'S DORMANT WAREHOUSE SCALES

With Single Wood Pillar. High Grade in Construction and Finish

In places where a large amount of weighing is done in one spot, and especially where goods are handled on trucks, Scales set with their platform level with the floor are very convenient. The materials weighed do not have to be lifted to the platform of the Scale and back again, and loaded trucks, barrels or casks may be rolled on the platform and weighed very quickly. The 2,500 lb. size has the pillar placed on the long side of the scale, so that trucks may be rolled across the long way without coming against the pillar. Same high grade construction and finish as the Double Iron Column, listed below.

Net Price—Single Pillar and Cap, Complete			81E1740	81E1741
Size	Capacity Pounds	Platform Inches	Net Price, Single Beam	Net Price, Double Beam
88	2500 x 1/2	36 x 37	\$60.00	\$72.00
89	3500 x 1/2	42 x 44	76.00	88.00
90	5000 x 1/2	44 x 53	104.00	116.00



DOUBLE PILLAR DORMANT WAREHOUSE SCALE

Double Iron Column—Highest Grade Construction and Finish

Our Dormant Scales are well made, the woodwork, including the platform, single pillar and cap, is all hardwood.

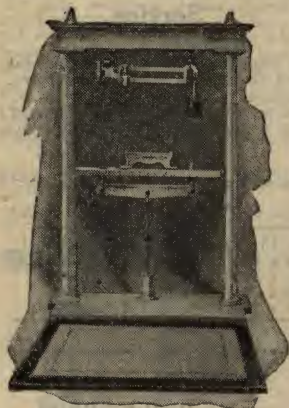
The platform is seasoned oak, finished in the natural color and varnished.

The double iron pillars are finished in black, and gold striped.

The levers and castings are all made extra heavy, of the best class of iron, and on the very latest improved patterns.

The beams are solid brass, extra heavy, with sliding poise,

Net Prices, Double Iron Pillar and Cap



The pivots and bearings throughout are of the best imported tool steel, carefully tempered.

Everything about our scale is made in the most thorough manner, by experienced workmen, and guaranteed first-class in every respect.

Note.—We can furnish the Double Iron Pillar Scale with Short Pillars, the beam placed above the cap, at same prices as on regular pattern.

		81E1742		81E1743
Size	Capacity Pounds	Platform Inches	Net Price Single Beam	Net Price Double Beam
91	2500 x 1/2	36 x 37	\$72.00	\$ 84.00
92	3500 x 1/2	42 x 44	88.00	100.00
93	5000 x 1/2	44 x 53	116.00	128.00

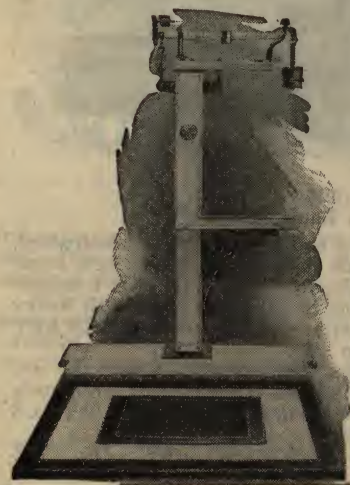
GUMP'S DORMANT HOPPER SCALE

Highest Quality Construction and Finish

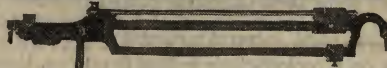
The beam is marked in 1/2-pound marks to 110 pounds.

Prices do not include hopper. Opening is made, however, and shipped complete, ready to install.

In construction and finish our Dormant Hopper Scales are unexcelled, pivots and bearings are of the best imported tool steel, beams are solid brass, Extra Heavy, with sliding poise, levers and castings, Extra Heavy, and of the latest pattern, and guaranteed first-class in every respect.



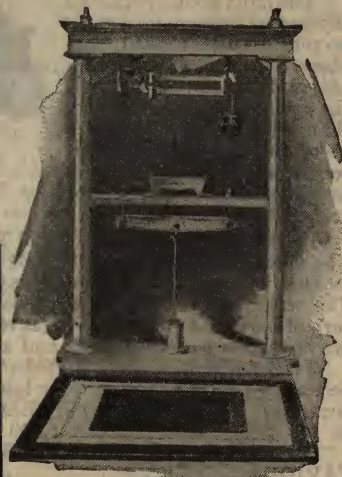
Improved Combination Grain Beam



For Dormant Hopper Scales. Full capacity on beam. Requires no loose weights. Upper beam revolves, is graduated in bushels for wheat, corn, barley and oats. Upper beam in 100 lbs. graduated to full capacity of scale; lower beam in lbs. to 400 lbs.

81E1744. Net price added to price of Double beam scale for 40, 60 and 100 bu. scales.

Net \$22.50



81E1746 Net Prices—Single Wood Pillar

Number	Capacity, Bushels	Capacity, Pounds	Platform, Inches	Net Price, Single Beam
108	40	2400	36 x 37	\$64.00
109	60	3000	42 x 44	80.00
110	100	6000	44 x 53	108.00
111	125	7500	44 x 53	120.00
112	150	9000	44 x 53	132.00

81E1747 Net Price—Double Iron Column

Number	Capacity, Bushels	Capacity, Pounds	Platform, Inches	Net Price, Double Beam
113	40	2400	36 x 37	\$88.00
114	60	3000	42 x 44	104.00
115	100	6000	44 x 53	132.00
116	125	7500	44 x 53	144.00
117	150	9000	44 x 53	156.00

Note.—We can furnish the Double Iron Column, with short columns, the beam above the cap, if so desired at same prices as on regular pattern. Sizes up to 1600 bushel capacity—prices on application.

Wagon and Auto-Truck Scales

GUMP'S PIT DOUBLE TRUSSED GRAIN, STOCK
WAGON AND AUTO-TRUCK SCALE

Accurate---Reliable
Easily Installed
Plan Furnished with
Each Scale for Installing

Double Trussed Levers--Double Brass Beam
Fully Warranted and Guaranteed Accurate

Built of High
Grade Material
For Heavy
Service.



Gump's Double Trussed Pit Wagon and Stock Scale is the highest type of pit scale on the market. It is constructed of the finest material throughout. Double trusses run the full length of the levers, and all levers are hung in specially constructed bearings so there is no friction. **FULLY WARRANTED AND GUARANTEED ACCURATE.**

Prices include scale with double brass beam box or office fixtures (state which is wanted in ordering), and regular extension lever. Longer extension lever can be furnished at extra charge. When wanted state length. Prices on application. When wanted with Office Fixtures instead of Beam Box, add \$10.00 extra to prices.

81E1755

SIZES, NET PRICES, ETC.

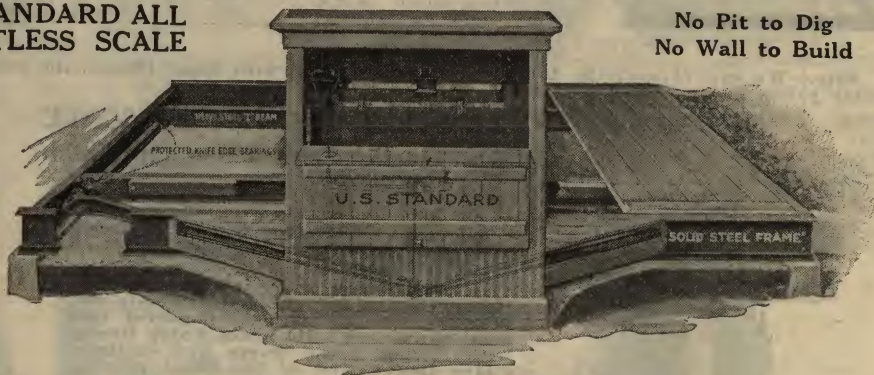
Size	Capacity	Size of Platform	Net Prices	Size	Capacity	Size of Platform	Net Prices
145	4 Tons	8 x 14 feet	\$ 95.00	151	8 Tons	8 x 16 4/12 feet	\$155.00
146	5 Tons	8 x 14 feet	110.00	155	8 Tons	8 x 22 feet	175.00
147	6 Tons	8 x 14 feet	125.00	220	10 Tons	8 x 22 feet	275.00
150	6 Tons	8 x 16 4/12 feet	140.00	522	15 Tons	8 x 22 feet	300.00
154	6 Tons	8 x 22 feet	150.00	202	20 Tons	8 x 22 feet	360.00

We can furnish this scale with steel frame. Prices on application.

"GUMP'S" U. S. STANDARD ALL STEEL FRAME PITLESS SCALE

Double Compound Beam
No Loose Weights
Total Depth Only 9 Inches
Fully Guaranteed

The most popular scale on the market because it requires no pit. Can be moved from place to place with little trouble, and the elevation above the ground is but little more than a pit scale. It requires no mechanic to install and is complete. All the customer supplies are the nailing strips and platform planks.



No Pit to Dig
No Wall to Build

Setting Up Plan Furnished With Each Scale.

IT IS ALL STEEL EXCEPT THE PLATFORM AND BEAM BOX, and is most solidly and rigidly constructed. The sides are 9 inch and the ends 8 inch solid steel channels bolted together at each corner with heavy angle irons, making it impossible to give in any way. The joist supports for the platform planks are 6 inch solid steel I beams. The scale is built to stand the most severe strain. THE ROCKER LEVERS are heavy gray iron fitted with heavy carbon hardened steel knife-edges resting on a rocker-chair bolted firmly on the oscillating end channels. THE FEET are of carbon hardened steel, and attached to each end of the I beams by heavy iron lugs.

THE ARM LEVER is bolted to the rocker levers and runs direct to the Beam Box Rod, doing away with the unnecessary bearings and greatly lessening the friction. Each scale is carefully tested and is guaranteed absolutely accurate. LUMBER REQUIRED. Fourteen planks, 2 x 12 x 8 ft.; two timbers, 2 x 4 x 13 ft.; two timbers, 2 x 3 x 8 ft. Shipping weight, about 1,300 lbs. Scales Nos. 81E1770 to 1774 take larger timber dimensions.

GUMP'S SCALES ARE GUARANTEED TO COMPLY WITH ALL THE WEIGHING LAWS OF THE VARIOUS STATES.

81E1756	4 tons capacity with 8 ft. x 14 ft. platform... Price, net, \$120.00	81E1770	8 tons, 10x18' \$270.00
81E1757	5 tons capacity with 8 ft. x 14 ft. platform... Price, net, 125.00	81E1776	10 tons, 10x18' 285.00
81E1758	6 tons capacity with 8 ft. x 14 ft. platform... Price, net, 135.00	81E1774	15 tons, 10x18' 300.00
81E1759	Gump's SPECIAL Compound Beam which carries entire capacity of scale on beam, (no loose weights) Reading from 2 lbs. to capacity of scale, when desired, add to regular price of scale..... \$ 22.50		

WEIGH BOOKS

We can furnish weigh books containing
100, 600 or 1,200 certificates.
Prices on application.



U. S. STANDARD TEST WEIGHTS

Made of Cast Iron, accurately sealed.
Capacity, 50 pounds.
Net price..... Each \$5.00

Gump's Controllable Wagon Dump Scale

Complete with Controllable Dump and Double Brass Beam.

Gump's Controllable Dump Wagon Scales are furnished **Complete with Patent Dump** (except timbers) with **building plan**, ready to install.

This combination of Scale and Dump has only ten main bearings, while similar devices have from eighteen to twenty-two. This affords the least amount of friction, which makes this scale very sensitive and accurate.

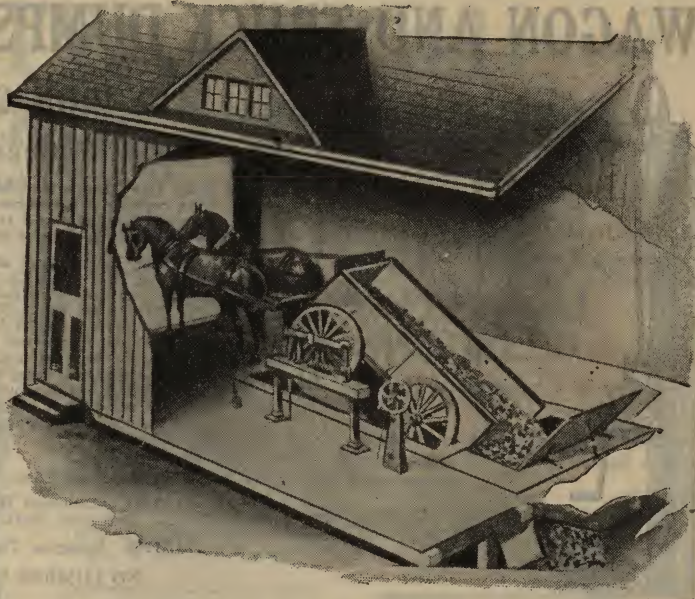
This controllable feature renders practicable the combination of **dump and scale on one platform** or foundation, so that the wagon may be driven upon the scale, **weighed, dumped and re-weighed**, thus avoiding the annoyance and delay occasioned by the old style methods, the motion is so smooth and **free from concussion or jar** that there is **no injury** done to the wagon dump or scale.

Platform, 8 x 16 feet, 4½ inches.

Capacity, 6 tons.

Furnished with Either Office Fixtures or Beam Box.

81E1762 Net Price, Complete with Controllable Dump.....\$225.00



Always Under Perfect Control of the Operator

"Reynold's" Improved Platform Truck

For Mills, Stores, Warehouses, Creameries, Etc.

Patent Ball Bearing Caster. Light Running. Turns Easily.

Even When Heavily Loaded. Heavy Construction.

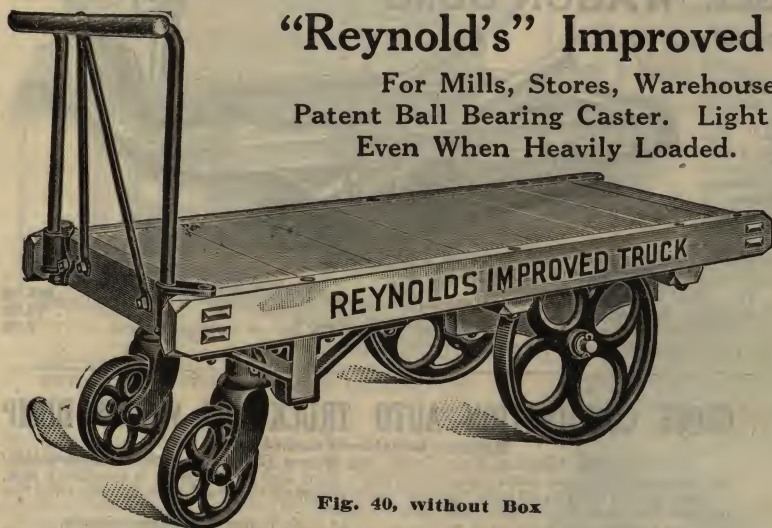


Fig. 40, without Box

This truck will be found especially adapted to the wants of merchants, millers and warehouse men. Jobbers in almost any line will find by its use a great saving of time and expense. We sell them to fit elevators or scales, and thus do away with transferring from truck to elevator or scales, and vice versa.

The Reynolds Truck has many points of excellence and superiority over the common trucks, as will be readily seen by comparison.

The front wheels being casters, the truck will turn in its own length, and can be run on elevator or scales

from any angle. The running gear is so arranged that it can be run on any dormant warehouse scale of one ton capacity. The wheels are so large in diameter, and so much of the weight of the load comes directly over them, that one man can carry twice as much on it as upon any other truck made.

Also made with iron or wood racks for wholesale houses, factories, etc., and also with boxes made with sides to let down, or with removable ends and sides.

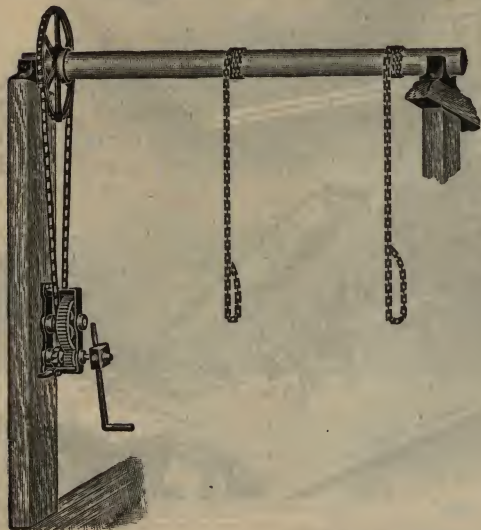
81E1692

Sizes and Net Prices

Size	Size of Platform in Feet*	Diameter of Wheels Inches	Diameter of Casters Inches	Height to Top of Platform Inches	Capacity in Lbs.	Weight Lbs.	Price Each Net
0	2 x 3	12					
1	2 x 4	12	6	14	1,200	125	\$21.60
3	2½ x 4	12	6	14	1,200	152	22.50
4	2½ x 5	12	6	14	1,200	172	23.50
5	3 x 4	12	6	14	1,200	161	23.50
6	2½ x 5	12	6	14	1,200	173	24.30
8	2½ x 5	12	6	14	1,200	175	24.30
9	2½ x 5	12	6	14	1,200	192	26.45
11	2½ x 4	18	9	19	3,000	217	27.00
13	2½ x 4½	18	9	19	3,000	229	28.35
15	3 x 4½	18	9	19	3,000	237	29.00
16	3 x 5	18	9	19	3,000	246	30.00
18	2½ x 5	18	9	19	3,000	243	30.00
19	2 x 6	18	9	19	3,000	230	29.00
20	2½ x 6	18	9	19	3,000	240	30.00
21	3 x 5	18	9	19	3,000	255	31.00
22	3 x 6	18	9	19	3,000	255	31.75
23	3 x 8	18	9	19	3,000	270	32.40
					3,000	310	36.00

81E1694 —Box 20" high, as illustrated, to fit any size truck. Price \$3.00 per foot length of truck. Wood or Steel Racks furnished on application. *Trucks 4 inches longer over all.

WAGON AND TRUCK DUMPS AND DUMP IRONS



ALL IRON OVERHEAD WAGON DUMP

Roller Bearings--Easily Operated--Strong, Durable

The illustration here shows the all-iron overhead wagon dump as it is regularly furnished. It is built very heavy and strong for the most severe service, and is undoubtedly the best and most economical overhead dump on the market.

The hollow steel shaft is 6 inches in diameter and 10 feet long. THE SPROCKET WHEEL and HOISTING CHAINS are securely fastened on the shaft and the chains have large hooks which can be hooked into any link. THE BOXES ARE ROLLER BEARING, which makes the dump very easily operated. THE GEARS in the all-iron frame have a lock to hold at any place desired and to prevent any danger of the load dropping back until released. In the power dump a friction brake is supplied to control the dump. The combined hand and power dump has heavier frame and gears, also extended shaft on which a double flange face pulley can be placed to connect with the same type of pulley below, on which is a loose belt. We furnish a swinging tightener which is fastened on the floor to work against this belt when operating the dump.

SIZES AND NET PRICES

81E1763	Hand Power All Iron Overhead Wagon Dump.....	Each	\$60.00
81E1764	Combined Hand Power or Power Overhead Dump, with Extended Shaft 1 1/4 inches, and One Swinging Tightener...	Each	80.00
81E1765	Swinging Tightener only.....	Each	20.00

NO LUMBER OR TIMBER INCLUDED IN THESE PRICES

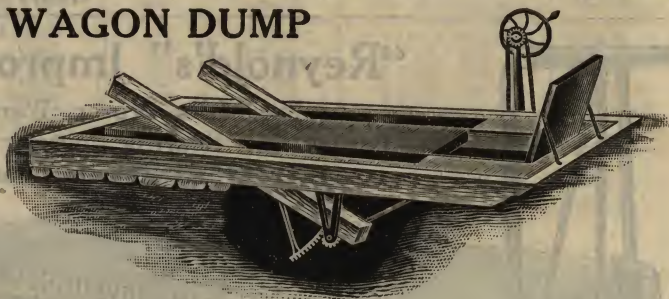
CONTROLLABLE WAGON DUMP

Always Under Perfect Control of the Operator

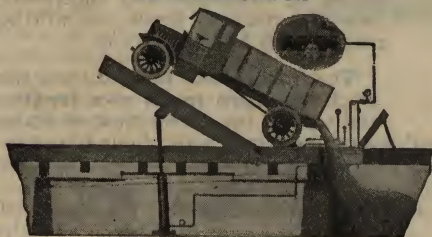
We furnish our Controllable Wagon Dump separate from the scale, supplying building plans, which enables the dump to be used in connection with other scales. They are made in two sizes, "Standard" and "Special." The "Standard" Dump is made with a shaft 6 feet, 9 ins. long, a length that will permit of the dump post being set on the side of an 8-foot platform. The "Special" Dump is regularly made with a shaft 8 feet 3 inches long, a length that will permit of the dump post being set back 18 inches from the side of an 8-foot platform, but the length of the shaft can be increased to permit of the dump post being set back any distance from the side of see platform up to 36 inches.

81E1766	Net Price, "Standard" Wagon Dump, Complete. Per Set.....	\$65.00
81E1767	Net Price, "Special" Wagon Dump, Complete. Per Set.....	75.00
	Net Price For Extension Shaft beyond 8 feet 3 inches long, for use on "Special" Dump, per foot or fraction thereof.....	2.00

NO LUMBER OR TIMBER INCLUDED IN THESE PRICES.



DUMPING TRUCK



DUMPING WAGON



GLOBE COMBINATION AUTO TRUCK AND WAGON DUMP

Simple—Reliable—Practical.

The Globe Combination Auto Truck and Wagon Dump is simple in construction, having only three main parts—the Compressor, Tank and Cylinder—it is absolutely safe, as every part is built to 20 tons capacity which is several thousand pounds more than the heaviest load that would drive into your elevator.

It is a great time saver as it will dump a load clean in less than three minutes.

THE CYLINDER.

By means of this simple powerful Air Arm, the Globe Wonder Arm, which is pivoted at the bottom, lifts either the truck or wagon and sled section of the platform at the immediate wish of the operator.

THE PLATFORM.

The incline or "jack-knife" type of platform comprises really two platforms, one within the other, both being pivoted on a hollow shaft at the entering end. This is considered the very best engineering practice, as it raises the front wheels in a manner similar to driving a wedge under them and at the same time forms a rigid support because the timbers are firmly secured at one end.

COMPRESSED AIR EQUIPMENT.

To produce Compressed Air, a Curtis No. 4, 3x3 1/2" upright air compressor is furnished, which can be operated by any power already being used in the mill or elevator. It can also be operated by a separate motor, if desired.

THE INSTALLATION.

The Globe Combination Auto Truck and Wagon Dump can be installed in any driveway, regardless of the width, length, height or depth, on any scale, regardless of make, type or size. The reason for this is that our Tilting Power Cylinder, which is 10 inches in diameter, is the only part of the equipment which it is necessary to place beneath the platform. The construction of the platform is such that it can be lessened in both width and length to fit any individual building.

Specifications and general information furnished on application.

81E1770	Price complete, F. O. B. Iowa Factory.....	\$345.00
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PLAIN WAGON DUMP IRONS



Style B Wagon Dump Irons.

81E1768	Net Price Per Set (Irons only, Style A).....	\$25.00
81E1769	Net Price Per Set (Irons only, Style B).....	30.00

The Style A is intended to be fitted with a wooden lever for operating the dump. Style B is furnished with an iron lever and rod for this purpose. The iron work only is furnished.

Style A
Wagon Dump Irons



Ideal TWO HIGH CORN CRACKER AND GRADER

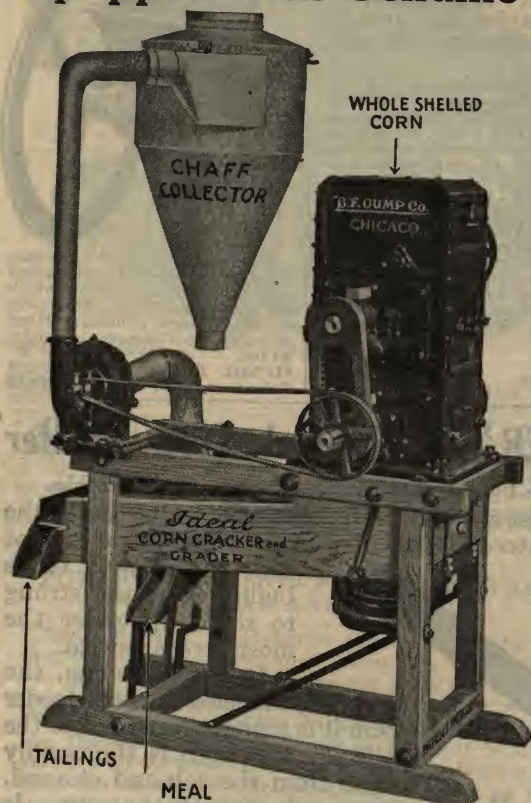
Equipped with Genuine "Le Page" Patent Corrugation

A Self-Contained Machine Delivering Uniformly
CRACKED CORN IN TWO SIZES
SCRATCH FEED and
BABY CHICK FEED

When furnished with special corrugated roll will also cut Wheat and Kaffir Corn.

Recognizing its high nutritive value, poultry and stock raisers are today demanding evenly cracked corn, free from hulls, dust and impurities.

The "IDEAL" two high corn cracker and grader, cutting corn the "Le Page" way, accomplishes all of this at the minimum of expense for installation and operation.



SHOWING "IDEAL" TWO HIGH COMPLETE WITH ASPIRATOR AND DUST COLLECTOR

THE ROLLER MILL consists of an adjustable feed gate, feeder roll and two 6"x12" chilled iron "Le Page" cut rolls, running against our patented convex cutter bars. A very simple adjustment permits the operator making either size cracked corn without changing the rolls.

THE GRADER effectively separates the different products conveniently, delivering them from separate spouts.

EXCLUSIVE FEATURES: The Genuine "Le Page" patent corrugation has no equal for cutting corn and produces 96% of pure cracked product with only 4% of feed meal. The Juby Sieve Drive avoids getting your machine out of balance, eliminates noise and gives a positive, vibratory movement to the sieves. An Automatic Bumper, tapping the sieves at fixed intervals, effectively cleans them and increases their capacity.

CAPACITY varies according to moisture content. Cutting corn of about 15% moisture, the capacities range as follows: Making Cracked Corn—18 to 20 bu. per hour. Making small Chick Size Corn—10 to 12 bushels per hour.

SPECIFICATIONS OF TWO HIGH OUTFIT

Length on floor	46 inches
Length, Overall	50 "
Width on Floor	23 "
Width, Overall	38 "

Diameter of Drive Pulley	14x5 inches
Speed of Drive Pulley	700 R.P.M.
Horse Power required for operating	5
Height to Top of Feeder	58 inches

"IDEAL" SINGLE CORN CRACKER AND GRADER

This outfit is similar in construction to that of the two high, except one roll and patented convex cutter bar are used instead of duplicate sets.

NET PRICES

81F700 "IDEAL" Two high corn cracker and grader	\$320.00
81F702 "IDEAL" Two high corn cracker and grader, complete with aspirating fan and chaff collector	370.00

81F704 "IDEAL" Two high roller mill only	245.00
81F706 "IDEAL" Corn grader only	70.00
81F708 "IDEAL" Single corn cracker and grader	180.00
81F710 "IDEAL" Single Corn Cracker and Grader Complete with Aspirator and Chaff Collector	230.00

Crack Your Corn
The "Le Page" Way
It Means Less Waste
and a Better Product



SHOWING "IDEAL" SINGLE WITHOUT ASPIRATING FAN AND DUST COLLECTOR

Hand and Power Corn Shellers

"ELGIN" Round End One Hole Sheller



one-hole cornsheller ever offered to the trade. face, with bolts to attach to the balance wheel is extra and is furnished only when ordered.

The most popular style of hand corn sheller made, and as improved and now manufactured combines every desirable feature required in a machine of this character. The framework, which is made of heavy hardwood, is strongly bolted together, making every part of the machine firm and rigid.

The feed table is securely bolted to the feed spout and is supported by the corner posts of the sheller. The feed spout is placed directly over the shelling wheels, and, as the shelling wheels grip the ears of corn firmly, the labor of feeding is reduced to a minimum, no crowding or pushing being required; large or small ears of corn being fed into the sheller with equal ease. The rag-iron and the spring which controls it are adjustable, and when properly set any size of ear may be shelled. The shaft bearings are all bored true to size, and on the crank side the three bearings are connected, so that they cannot get out of line. Bearings are all bolted to frame. Shafting is cold rolled steel. The lightest running, best constructed and most desirable. We can also furnish a clamp pulley, 8-in. diameter by 2-in. so that the sheller can be used with light power. This pulley Capacity 12 to 15 bushels per hour. Weight 140 pounds.

81F2400—Price, with Fan and Feed Table, Each.....\$11.50
81F2402—Price, Clamp Pulley, 8-in. diam., 2 in. face, extra. Each..... .75

"Excel" Hand Crusher and Grinder



For Hand Power

Has large capacity for its size. Grinding mechanism is cone shaped with a specially hard surface which will give long service. Adjustable for fine or coarse grinding. Hand wheel 18 inches diameter. Weight, 30 lbs.

81F3012 Excel Hand Crusher and Grinder. Price, each.....\$6.75

The "HUSTLER" Self Feed Corn Sheller

Two Hole — Two to Four Horse Power — Strong and Durable.

Undoubtedly the best and most durable sheller of its size on the market. It is guaranteed satisfactory in every way and cannot fail to please. It is built heavy and strong to stand up under the most severe service.

It is self-feeding, the ears being shoveled into the feeder where it is automatically fed to the sheller. The corn is thoroughly shelled from the cob and cleaned.

No corn is carried off with the cobs. It has a capacity of from 50 to 75 bu. per hour when operated with a two to three horsepower engine and 75 to 100 bu. per hour with a four horsepower engine or larger. The weight of the sheller complete is 914 pounds. Because it weighs more than machines of similar type designed for the same work it will stand up under the most severe strain put upon it.

Capacity
50 to 75
Bushels per
Hour with
2 H. P.

75 to 100
Bushels
per Hour
4 H. P.

Weight,
914
Pounds

NET PRICES

81F2410 "Hustler"—Self-Feed Two-Hole Corn Sheller, complete with Cob Carrier and Double Sacking Elevator, each.....\$107.50

81F2412 "Hustler"—Self-Feed, Two-Hole Corn Sheller, complete with Cob-carrier and Wagon Box Elevator, as shown in cut; each.....\$116.50
Mounting Trucks—Extra..... 50.00

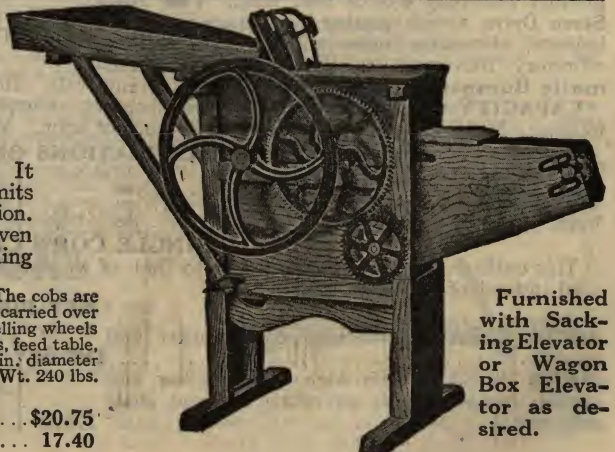
"Norwood" Two Hole Sheller

Square Frame — For Hand or Power

This sheller is particularly adapted for general farm, warehouse and custom mill use where large capacity is not required. Strong construction and nicely finished. It will give the very best satisfaction. Strong gearing transmits the power to various shafts with no slipping or lost motion. A large heavy balance wheel greatly assists in keeping even speed. Adjustable rag irons and springs insure clean shelling on either large or small ears of corn.

The fan and cob carrier clean and separate the corn thoroughly. The cobs are carried to a distance beyond the end of the sheller and no corn can be carried over with the cobs. A large feed table with the spout directly over the shelling wheels makes easy and positive feeding. Sheller furnished complete with fans, feed table, cob carrier, crank and pulley for either hand or power. Pulley 8x4 in. diameter should run 300 to 400 R. P. M. when sheller is operated by power. Wt. 240 lbs. Capacity 25 to 30 bu. per hr. H. P. required 1 to 2.

81F2406—Price, complete as described above. Net.....\$20.75
81F2408—Price, Sacking Elevator, complete. Extra..... 17.40



Furnished with Sacking Elevator or Wagon Box Elevator as desired.

POWER SHELLERS AND CLEANERS

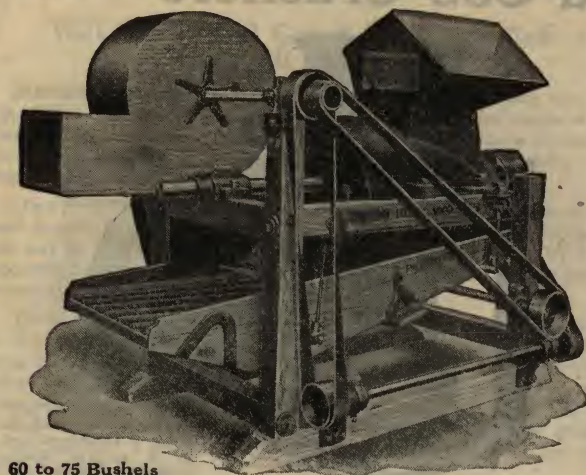
THE "WESTERN" COMBINED MILL SHELLER AND CLEANER

A Small Capacity Machine of Highest Quality.

Durable—Efficient—Self-Feeding—Dustless and Noiseless

Is a perfect machine of small capacity. It is Simple, Strong, Durable, Self-Feeding, Dustless, Noiseless, Easily Adjusted to suit different conditions of corn; can be changed to run in either direction by simply crossing belt that drives counter shaft. The hopper is reversible. Shells the corn clean from the cob and cleans it perfectly with a suction fan; is small (see dimensions), runs at a low speed, requires but little power and is, in every respect, the best Mill Sheller in the market.

We are prepared to fit this machine with both ear corn and sacking elevators at an additional cost if desired.



60 to 75 Bushels Capacity
81F1460

DIMENSIONS, CAPACITY AND NET PRICE

Extreme Height 4 ft. 3 in.	Space on floor over all 4' 4" x 32"	Size Pulley 8 in. x 5 in.	Revolutions per Minute 600	Weight 650 Pounds	Capacity in Bushels per Hour 60 to 75	Horse Power 3 to 4	Net Price \$108.00
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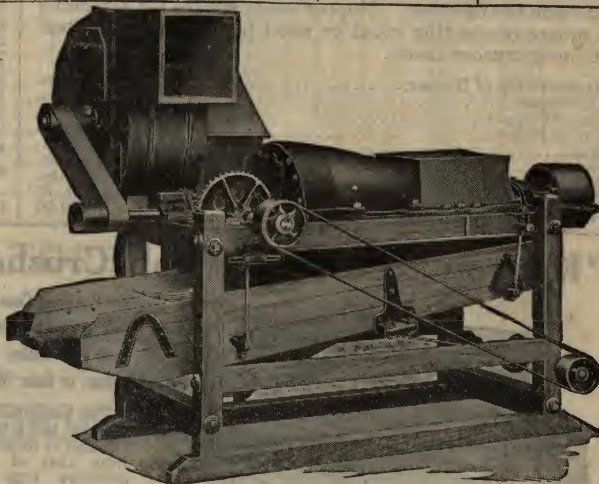
"WESTERN" REGULAR WAREHOUSE COMBINED SHELLER

POWERFUL SUCTION FAN REMOVES ALL DUST—CLEAN AND SANITARY

The "Western" Warehouse Combined Sheller is furnished with or without elevators, making a Combined Sheller and Cleaner for mills and elevators, where a sheller of small capacity is required. This machine is provided with a powerful suction fan, thereby keeping the room in which it is situated free from dust and dirt, as is not the case with blast fan machines. By depositing the dust on the outside of the building, we very greatly add to the comfort of owners and operatives, and the general appearance of the room in which the machine is situated.

Note.—This machine built with fan on opposite side when desired.

81F1462



Size	Extreme Height Over Fan	Extreme Height of Hopper	Space on Floor Over All	Size Pulleys		Rev. per Minute	Capacity per hour in bus.	Weight	Net Price Each
				Diam.	Face				
2½	5' 10"	4' 4"	8' 0" x 5' 4"	20"	8"	500	400-600	1400	\$360.00
4	5' 5"	3' 8"	7' 9" x 4' 10"	16"	8"	500	250-350	1100	292.50
4½	4' 9"	3' 0"	6' 7" x 4' 4"	10"	6"	600	175-225	850	225.00
5	4' 8"	2' 11"	6' 6" x 4' 3"	10"	6"	600	125-150	750	162.00

IMPROVED "TRIUMPH" POWER CORN SHELLER

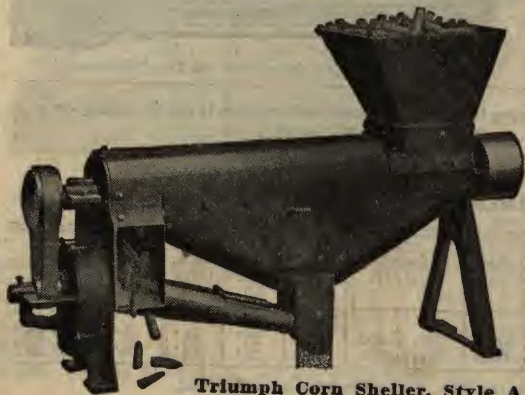
Built to Endure. Two Styles—to Stand on Floor or to Hang from Ceiling

These Shellers are made entirely of steel and iron and in two different styles, viz., "A" and "B." Style "A" is made to rest on the floor or ground, and style "B" is constructed to fasten under the floor, and is generally preferred as a mill sheller for the reason that the hopper will be on a level with the floor and can be easily shoveled into. Shells and separates corn from cob. The dust and dirt are removed by suction fan. They are designed and built for hard work, and are guaranteed to give entire satisfaction.

81F1464 Dimensions and Net Prices, Styles "A" and "B"

No. 2. Length—5 ft. 7 in. Height—2 ft. 2 in.
Width—1 ft. 10 in. Pulley—10 x 6. Rev. per Min.—500 to 800. Capac. per Hour—75 to 100 bu.
Weight—600 lbs. H. P.—4 to 6. Net price....\$110.00

BE SURE TO SPECIFY WHETHER STYLE "A" OR "B" IS WANTED

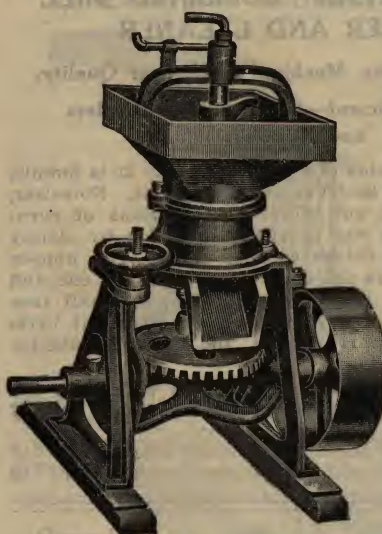


Triumph Corn Sheller, Style A

Size 5

"Excel" Corn and Cob Crushers

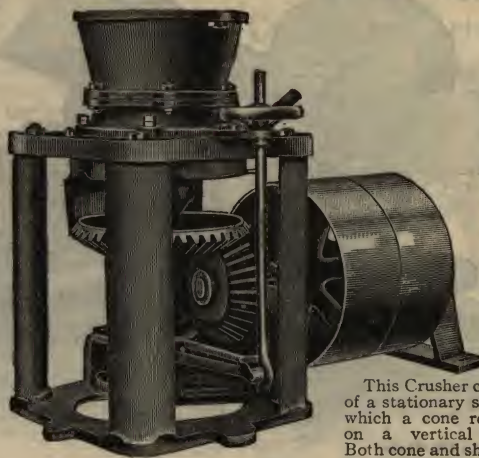
Size 6



Constructed on the same principles as the No. 6 Crusher, only somewhat lighter and smaller in size. Made especially to meet the demand for crushers of the vertical type for those who have not power enough for larger capacity. This crusher is designed for reducing ear corn fine enough to be readily ground to fine feed meal on a buhr stone, roller or other grinding mill. It is exceptionally strong

and durable, will not choke and does uniform work. Crusher will run either way by changing the pulley from one side to the other. Hopper made square for attaching a square conducting spout or wood hopper. The lightest running crusher made.

- Height to top of Hopper.....34-in.
- Floor Space.....18x22-in.
- Size of Hopper.....16x16-in.
- Size of Pulley.....16x5-in.
- Speed.....150 to 400 R. P. M.
- Capacity.....40 bu. per hr.
- Weight.....400 lbs.
- Power required.....3 to 4 H. P.
- 81F1470—Price, net, complete.....\$80.00



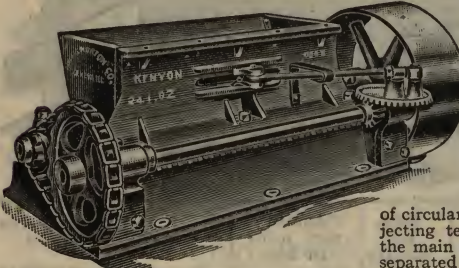
This Crusher consists of a stationary shell, in which a cone revolves on a vertical shaft. Both cone and shell are provided with teeth or sharp corrugations for

breaking up the corn kernels and cob. The fineness of the product is regulated by raising or lowering the cone on its shaft by means of a lighter adjustment. Made very heavy to withstand hard usage

Furnished with Either Fine or Coarse Cone and Shell

- Size floor Plate.....24"x24"
- Height to top of shell.....39"
- Size of Pulley.....20"x8"
- Number of cogs of pinion.....30
- Number of cogs of gear.....45
- Ratio Speed of Pulley to Speed of Cone.....3 to 2
- Speed of Pulleys.....300 to 500 R. P. M.
- Power required.....8 horsepower
- Weight.....1000 lbs.
- Capacity per hour (Coarse Crushing).....75 to 100 bu.
- 81F1472—Price, net, with Tight Pulley.....\$150.00
- 81F1474—Price, net, with Tight and Loose Pulleys.....160.00
- State whether fine or coarse Cone and Shell is wanted.
- Cast Iron Hopper for No. 6 Mill, extra.....\$15.00

"Kenyon" Corn and Cob Crusher



For Crushing Corn and Cob with or without husk for Roller, Attrition, or Buhr Mills.

The principle involved in this Crusher is different from that of the ordinary type of crusher. A number of circular saws with large projecting teeth are attached to the main shaft. The saws are separated and held in place by friction discs, which allow

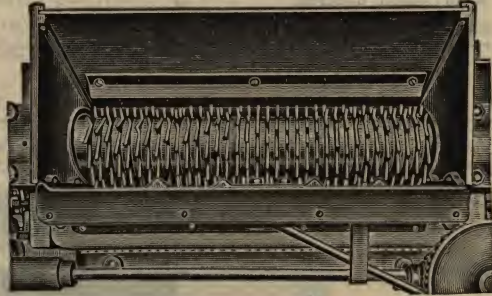
the saws to slip when striking hard particles. Hardened steel fingers between each saw, rip, shear and crush the corn as it passes from the hopper. An AGITATOR prevents the corn from bridging and clogging. THIS CRUSHER WILL CRUSH EITHER HARD OR SOFT, WET OR DRY CORN.

No better crusher made for this purpose. It will give long and continued service. THIS MACHINE IS A CRUSHER ONLY, for preparing corn and cob for grinding on roller, attrition, disc or stone buhr mills.

Furnished in left or right hand. Right hand always shipped unless otherwise ordered.

DIMENSIONS AND NET PRICES

- Number.....1
- Length, over all, inches.....54 1/2
- Width, over all, inches.....24
- Length, base, inches.....36
- Width, base, inches.....19
- Hopper, inside, inches.....24x10
- Driving Pulley, inches.....22x 8
- Speed, R. P. M.....500 to 600
- Horsepower.....7 to 10
- Capacity, bu., per hour.....75 to 100
- 81F Net price.....\$200.00



Showing the Cutting Saws on the "Kenyon"

"Bison" Corn and Cob Crusher

Designed to Break Down Husked Ear Corn and Prepare It for Grinding on a Buhr, Disc or Roller Mill

All parts are interchangeable and may be replaced at a slight expense.

81F1478

DIMENSIONS, NET PRICES, ETC.

Size	Capacity Bushels per Hr.	H. P. Required	Size Pulley	Speed R. P. M.	Wgt. Lbs.	Hgt. Over All	Lgth. Over All	Wdth. Over All	Net Price
Baby Bison	10 to 30	1 to 2	16x5	300 to 600	270	20"	41"	16"	\$57.50
Bison	25 to 75	2 to 5	18x6	300 to 600	350	21"	41"	18"	67.50

All Machines run with the Sun, facing Machine at pulley end.



"BOWSHER" CRUSHERS AND GRINDERS

Will Crush and Grind Corn and Cob
As Well As All Kinds of Grain

BOWSHER MILLS are unexcelled for crushing and grinding corn and cob, shelled corn, and all kinds of small grain. The peculiar design of the grinding mechanism, using conical shaped plates, which do the work close to the center of the shaft, make them very light running for their capacity. The grinding efficiency of these mills is also a strong feature.

The **HOPPERS** are large with a partition which enables ear corn and small grain to be ground together. When grinding ear corn alone, the partition may be removed and the entire hopper is thrown into one. With the hoppers so constructed small grain and ear corn can be mixed in any desired quantities.

The **CONE GRINDING PLATES** have long life, provide large capacity for power used and have a "shear" dress which opens and grinds the material instead of rolling and rubbing it flat. A feature of the cone shaped grinding plates is that less than one-half of the end pressure is sustained by the step. This reduces power loss and reduces the tendency to heat found in disc plates. When the mills run empty the grinders do not touch. The grinders for the Nos. 8, 7, 4 and 3 Mills are made in sections while the smaller sized mills are cast in one piece.

The sizes 8, 9, and 10 are especially recommended for ear corn.



Illustration Shows the No. 8 Size Crusher.

81F1483

Size of Mill	Floor Space Inches	CAPACITY BUSHELS PER HOUR				Speed R. P. M.	Pulley, Inches	Horse Power Required	Weight, Pounds	Net Prices
		Shucked Ear Corn	Oats and Shelled Corn	Small Grains	Unshucked Ear Corn					
No. 0	42 x 20	4 to 12	5 to 15	5 to 20	—	275 to 550	10 x 4½	2 to 4	215	Prices on Application
No. 1½	46 x 22	7 to 16	—	8 to 20	—	400 to 600	10 x 6½	4 to 6	335	
No. 2	39 x 20	4 to 15	—	5 to 20	—	450 to 1000	8 x 6½	4 to 6	240	
No. 2½	57 x 24	12 to 25	—	15 to 30	—	400 to 600	10 x 6½	6 to 8	410	
No. 3	43 x 27	12 to 15	—	15 to 40	—	800 to 1600	6 x 6½	6 to 8	305	
No. 4	47 x 27	12 to 30	12 to 25	15 to 40	10 to 20	800 to 1600	6 x 6½	6 to 10	375	
No. 7	55 x 30	15 to 40	15 to 50	20 to 60	—	800 to 1200	8 x 8½	8 to 12	490	
No. 8	55 x 30	20 to 50	20 to 55	25 to 60	20 to 40	800 to 1200	8 x 8½	10 to 15	605	
No. 9	72 x 33	40 to 80	40 to 100	50 to 125	30 to 60	1050 to 1200	10 x 10	15 to 18	850	
No. 10	75 x 34	50 to 100	75 to 150	80 to 175	40 to 80	1050 to 1200	12 x 12	16 to 25	1060	

When writing for Prices, state if Grinders are wanted with or without Elevator.

ELEVATORS

For Mills			For Mills		
3' Short Sacking.....	4 feet high.....	Nos. 0, 1½	6' Regular Sacking.....	8 feet high.....	Nos. 9, 10
4' Short Sacking.....	4 feet high.....	Nos. 2, 2½	4' Wagon Box.....	10 feet high.....	Nos. 3, 4, 7
4' Regular Sacking.....	7 feet high.....	Nos. 3, 4, 7	5' Wagon Box.....	10 feet high.....	No. 8
5' Regular Sacking.....	7 feet high.....	No. 8	6' Wagon Box.....	10 feet high.....	Nos. 9, 10

Prices on Application.

PEERLESS FEED GRINDING MILLS



For Crushing and Grinding Corn and Cob,
Shelled Corn and Grain

This Mill has been designed to meet the demand for one that can be operated with **light power**, yet have a reasonable capacity, do **fine grinding** and sell at a low price.

It is equipped with a **patent quick release**, by which the plates can be instantly thrown apart without changing the adjusting screw, a **ball bearing device** for taking the end thrust of the main shaft that will not heat or cause friction and a wooden pin break to protect the machine in case any hard substance gets into it. Made of iron and steel, excepting Hopper. **One pair fine and one pair of coarse plates furnished with each mill.**

The **grinding plates** of the Peerless Feed Mills are made of chilled iron with **machine cut corrugations**, so that they are absolutely perfect and true and will out-last any ordinary grinding plate threefold. They also can be re-cut when dull and are made in sections, three of which constitute a plate, two plates to a set.

Being in sections permits the grinding plates to be removed without taking the machine apart.

SIZES, CAPACITIES AND NET PRICES.

Catalog Number	Size	Horse Power Required	Size of Pulley	Speed R. P. M.	Capacity per hour	Size of Plates	Weight	Net Price Mill	Net Price Extra Plates
81F1484	16-X	3 to 5	14x4	300 to 600	6 to 20 bu.	6½-in.	175 lbs.	\$33.50	\$2.50
81F1486	1400	6 to 10	14x5	300 to 600	10 to 35 bu.	8-in.	240 lbs.	52.50	3.25

81F1488 Sacking Elevator, for any size of the above mills. Price.....\$19.50

VERTICAL FRENCH BUHR MILLS

“PLANTER’S PRIDE” VERTICAL FRENCH BUHR MILL

The “PLANTER’S PRIDE” is an iron frame vertical French Buhr Stone Mill. The stones are solid French Buhr. This mill is so well known that a thorough description is not necessary. It is built along such simple lines that any mechanic of ordinary ability can operate it and get the best results.

The runner stone is fastened rigidly to the end of the spindle and is dressed in tram with the bed stone so that no tramming or adjusting is necessary.

It is equipped with a ball bearing thrust to take the grinding pressure which works against the ad-justing hand wheels which regulate the fineness of the grinding.

It has a large coil spring which allows the stones to part and let foreign substances pass between the stones without causing much damage. This spring also forces the stones apart when there is no feed on the machine, thus preventing them from becoming damaged by running together.

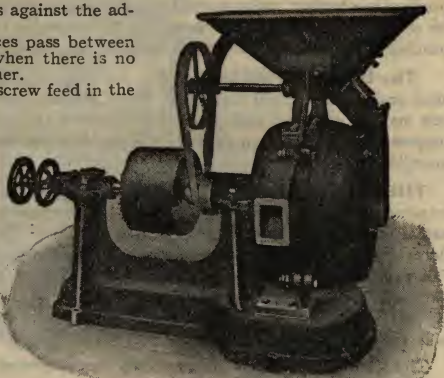
This mill has a very efficient feeding device consisting of a cast iron hopper with a screw feed in the bottom and a regulating gate which allows an even feed to go to the mill at all times.

F. O. B. FACTORY

81F988

SIZES, SPECIFICATIONS AND NET PRICES

Diam. of Stone.....	10"	12"	14"	18"	20"	22"
Bu. Cap. Feed, per Hr....	5 to 9	7 to 12	10 to 20	15 to 30	18 to 35	22 to 40
Bu. Cap. Meal, per Hr....	2 to 5	3 to 6	4 to 10	6 to 14	8 to 16	10 to 18
H P. Required	3 to 4	4 to 6	4 to 7	8 to 12	10 to 16	12 to 18
Floor Space, Inches.....	18x44	18x44	23x57	28x57	29x57	34x62
Ht. to Top of Hopper.....	32"	32"	41"	43"	44"	48"
Size Drive Pulley, In.....	7x4½	8x4½	10x5½	12x7½	12x7½	12x8½
Speed R. P. M.....	600-1100	600-1000	600-1000	500to900	500to800	450to750
Shipping Weight, Lbs.....	400	425	775	1000	1090	1390
Net Price, Each.....	\$103.50	\$121.50	\$144.00	\$180.00	\$225.00	\$256.50



“FARM AND PLANTATION” MILL

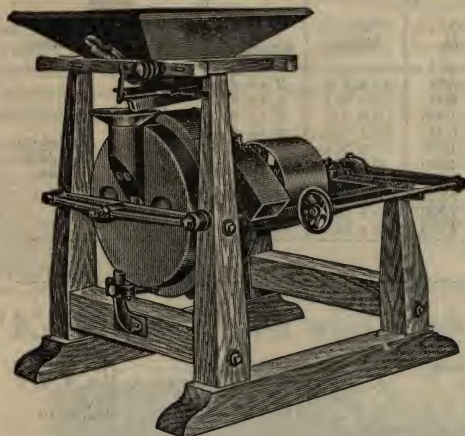
Genuine French Buhr Stones --- Requires Little Power. For Feed Grinding, or Making Corn Meal or Graham.

The FARM AND PLANTATION French Buhr Stone Mill is built in a vertical wooden frame which allows it to be sold some what cheaper than the iron frame vertical mills but is constructed with the same care and expert workmanship as the other mills. The wood frame mill is, of course, not as strong and substantial as the iron frame mills, but where only a medium amount of grinding is desired, gives excel-lent results in grinding feed and meal.

The runner stone is fastened rigidly on the end of the spindle and the bed or sta-tionary stone is supported on a pivot allowing it to tram itself to the runner stone.

The fineness of the grinding is adjusted by means of a hand wheel and lock nut at the end of the spindle and is also equipped with a release spring permitting any hard substance to pass through the mill without damaging the stones.

This mill is recommended where medium capacity and an average amount of work is desired.



81F990

SIZES, CAPACITIES AND NET PRICES—F. O. B. FACTORY

Diameter of Buhrs	Horse-Power	Size of Pulley	Capacity Bu. per Hr.		Revolutions per Minute	Weight Lbs.	Floor Space Inches	Height to Top of Hopper Inches	Height to Spout Inches	Net Price Without Bolter	Net Price with Bolter Attached
			Table Meal	Feed							
14	3 to 5	9x5½	5 to 8	6 to 20	800 to 1200	400	34½x26	38	18	\$106.40	\$124.00
18	4 to 10	11x6½	8 to 12	15 to 30	600 to 800	600	41 x32	46	24	137.60	150.00
22	7 to 12	14x8½	10 to 18	20 to 40	600 to 800	1200	54 x42	54	26	200.00	224.00

Tight and Loose Pulleys Cannot Be Placed on These Mills.

GENUINE “HIGGINS” MILL PICKS

Guaranteed Highest Quality

For over forty years the standard Mill Pick, nothing better made We sell only the **Genuine John C. Higgins' Picks, Guaranteed.**

81E996

NET PRICES

2 lb. Mill Picks or less in weight	each	\$2.30
2½ lb. Mill Picks	"	2.90
3 lb. Mill Picks	"	3.45
3½ lb. Mill Picks	"	4.00
4 lb. Mill Picks	"	4.60

Larger Picks than stated at \$1.15 lb. net.

No. 81E997

Pick Handles, Patent Socket	"	2.00
Plain Hickory Handles, for Eye Picks	"	.20

Repairing Old Picks

Dressing Old Picks.....	"	\$0.60
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Splicing Old Picks

Eye Picks, per weld	"	\$1.00
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Cracking Picks.....	"	1.00
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(Prices for Welding do not include Dressing)

No. 81E998

Furrow and Facing Hammers

3 pounds and under.....	"	\$5.50
3½ or 4 pounds.....	"	6.00
Dressing Old Furrow or Facing Hammers.....	"	2.00



PICK WITH EYE



PICK WITHOUT EYE



PATENT HANDLE



FACING HAMMER

"IDEAL" CORN MEAL AND FEED SCREEN



Showing The Regular "IDEAL" Cornmeal and Feed Screen Without Bumper

The opposite illustration shows the "IDEAL" Corn Meal and Feed Screen with a bumper which vibrates the wire and keeps the stock turning so it will not stick in the meshes and will pass through more readily. This also aids the travel of the stock and will increase the capacity of the sieve from twenty-five to fifty per cent.

We can supply this bumper equipment for any make sieve of similar construction. Give width, length and height of sieve box. Prices on application.

The application of this bumper will increase bolting capacity 25 to 50 per cent.

81F870 Net price, without bumper, including wire sieve
14, 16, 18, 20, or 24 mesh, each.....\$40.00

81F871 Net price, with bumper, including wire sieve—
14, 16, 18, 20, or 24 mesh, each.....\$55.00

81F872 Extra sieve frames, 24 x 50 inches, without
cloth, each.....\$5.00

NOTE—State what mesh wire or perforated sieve is wanted. Unless otherwise ordered, we will send 18 mesh for regular corn meal sieve.

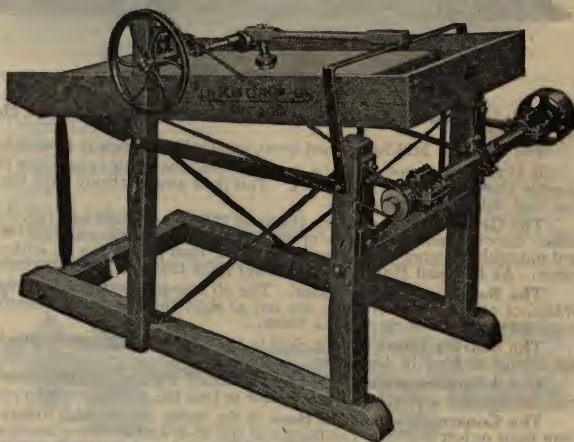
NET PRICES FOR EXTRA SIEVES WITH FRAME.

12, 14, 16 or 18 mesh, Tinned Wire Cloth.....\$6.25
20 mesh, Tinned Wire Cloth..... 6.50

Capacity 20--25 Bushels Per Hour
Adaptable for Many Purposes

This is a handy and popular little machine. It is adapted to a great many purposes, is used extensively for rough cleaning of grain, and for separating cobs and silk from corn after the crusher, as well as for regular corn meal sieve. Can be clothed with any mesh wire or perforated metal. Can be adjusted by raising or lowering the tail of sieve, increasing or decreasing the capacity. Can be clothed with two numbers of cloth and give two products, allowing the coarse product to tail over. Well made with babbitted bearings and guaranteed first class.

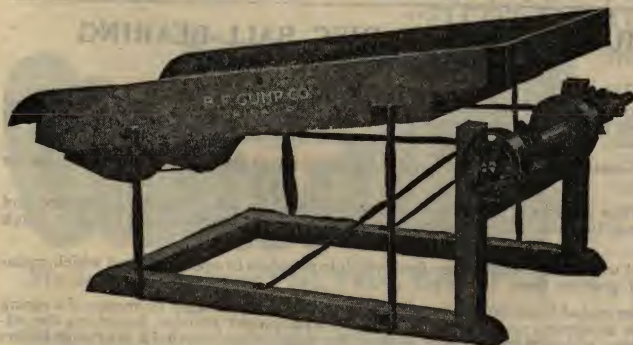
Dimensions, etc. Length, 60 inches; width, 26 inches; height, 38 inches; shaft $1\frac{1}{16}$ x 36 inches; pulley, 6 x 3 inches; weight 150 pounds; revolutions per minute, 600; size sieve, 50 x 24 inches.



Showing The "IDEAL" Cornmeal and Feed Screen With Bumper.

24, 26, 28 or 30 mesh, Tinned Wire Cloth.....\$7.00
Stock Sizes of Perforated Zinc..... 8.50

"IDEAL" SPECIAL FEED SCREEN



Furnished With or Without Bumper
Capacity 35-50 Bushels Per Hour
For Grading All Kinds of
Ground Feed or Meal.

This is larger in size and capacity than our regular Feed Screen but almost the same in appearance. It is specially made for grading all kinds of ground feed, corn meal, graham, spices, coffee or any dry material. It is made with double sieves which are removable, and which allows separating ground material into two or three different grades, thus eliminating the coarse material on the first sieve and the fine material on the second one, a feature greatly superior to a single sieve machine.

Made with double wrought iron pitmans, babbitted boxes and balance wheel. Size of Sieves, 36 x 72"; capacity 35 to 50 bushel per hour; pulley 7" x 3"; speed, 500 r. p. m.

The "IDEAL" Special Feed Screen can also be furnished with a bumper as described above. The capacity will be increased from 25 to 50%.

81F874 Net Price, without bumper including wire sieves, not finer than 24 mesh.....\$ 80.00

81F875 Net Price, with Bumper, including wire sieves, not finer than 24 mesh..... 100.00

81F876 Extra Sieve Frames, 36 x 72 in., without cloth, each..... 10.00

We make all sizes and kinds of Feed Screens for Special Uses.

We Build Special Screens to Order. Tell Us the Kind of Work the Screen Must Be Used For and We Will Submit Specifications and Prices on a Screen to Fit Your Need.

THE "HALSTEAD" ATTRITION MILL

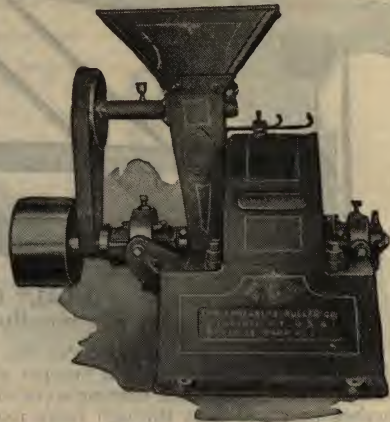
"The Mill of Great Economy"

Plates So Designed As To Give Four Cutting Edges.

A Mill Which Is Low in Price---Gives Absolute Satisfaction, with Low Up-Keep Expense.



Showing the Styles No. 18-B and 24-B. Double Head.



Showing 18' "Tiger" Single Head.

The Halstead Mill has gained great popularity because it combines great efficiency with low price and small upkeep expense.

It is so constructed that the center of the disc itself is brought to the outside of the casing and through this open head the grain passes directly through the grinding plates. This does away entirely with the use of seal rings which when worn often allow the grain to leak through and mix with the ground feed.

The Grinding Plates of the Halstead Mill are so made as to give double wear as they are alike on both sides. The mills may be run in either direction and each side of the plate has two cutting edges. When one side of the plates are worn they may be unbolted from the head and put with the worn faces toward the head, thus presenting an entirely new cutting surface. In this way one set of plates have four cutting edges. As Halstead Plates sell at a lower price than other plates the biggest item of replacement is reduced more than one half.

The Bearings are wick oiling. The oil is evenly distributed over the surface and proper lubrication is maintained with little attention. While, of course, these bearings are not as light running as ball bearing equipment, Halstead Mills deliver remarkably large capacity for the horse power required to operate them.

The Bearing Boxes are not rigid in the frame but are constructed on the pivot principle so that whatever adjustment is made in one does not clamp or bind in the other.

End Adjustments—All mills are equipped with self-adjustable end thrust bearings and quick release levers. This provides against bearings heating and also allows the operator to free the mill of grain to provide easy starting.

The Construction of the Base of the Style No. 18 Mill differs from the Style 18-B and 24-B. It can be belted from above, below or from right or left angles. The frames of the 18-B and 24-B are heavier and being open on the rear side, permit belting from nearly any desired angle. The 24-B being a larger mill is of heavier construction but of the same design as the 18-B.

The "TIGER" is a small single head mill, economical and durable. It has great capacity for the power required.

These Mills are especially adapted for grinding all kinds of grain to any desired fineness. Fully guaranteed in every way.

81F984

SIZES, CAPACITIES AND NET PRICES—F. O. B. FACTORY.

Size No.	Price	Capacity Bushels, per Hour	Speed R. P. M.	Size Pulley Inches	Horsepower	C. to C. of Pulleys	Net Weight Pounds	Overall Dimensions, Inches		
								Length	Width	Height
18	\$200.00	40 to 50	1800	9 x 5	15 to 20	36	730	72	24	33
18-B	225.00	40 to 50	1800	9 x 5	15 to 20	36	800	70	24	36
24-B	300.00	75 to 100	1600	12 x 6	25 to 40	42	1500	86	34	42
"Tiger"	150.00	16 to 24	2000	9 x 5	6 to 8	.....	530	37	26	36



THE MUNSON SINGLE DISC BALL-BEARING ATTRITION MILL

This mill will grind corn and cob, shelled corn, oats, barley, wheat and in fact, all kinds of grains used for feeding purposes, giving as great capacity in relation to the amount of power used and producing a quality equal to that of any Double Disc Attrition Mill.

This mill is self-contained, requires no special foundation and can be driven from below or above at any angle.

The grinding device consists of two sets of plates, one being bolted to the revolving disc and the other to the case of the mill. The grinding plates are made of a special metal which is tough and hard.

The mill is fitted with an automatic shoe feed which is noiseless in operation and which maintains a uniform and positive feed.

The plates are prevented from striking together when the hopper is empty by means of a spring collar; the plates can be thrown apart by a quick release attachment without disturbing the adjustment; relief springs, which permit the plates to spring apart when any hard substance enters the mill, is another important feature. This is also an excellent mill for making cracked corn.

81F982

18-inch Munson Mill

Dimensions and Net Prices, Etc., F. O. B. Factory.

Size	Weight lbs.	Length Over- all	Width Over- all	Height Over- all	Size Pulley	Speed for Cracked Corn	Speed for Meal	Capacity of Cracked Corn	Capacity of Meal	Power Required	Net Price
12 in.	800	4' 6"	1' 5 1/2"	3' 0"	6x5	1000 R.P.M.	3000 R.P.M.	40 to 60 bu.	12 to 25 bu.	6 to 12 H. P.	\$255.00
18 in.	850	4' 6"	2' 0"	3' 4 1/2"	8x6	900 R.P.M.	2100 R.P.M.	60 to 100 bu.	20 to 35 bu.	10 to 15 H. P.	307.50
20 in.	940	5' 6"	2' 0"	3' 4 1/2"	9x6	800 R.P.M.	2000 R.P.M.	75 to 125 bu.	25 to 40 bu.	12 to 18 H. P.	330.00
24 in.	1400	5' 6"	2' 4 1/2"	4' 1"	10x7	700 R.P.M.	1800 R.P.M.	100 to 150 bu.	30 to 50 bu.	15 to 25 H. P.	397.50

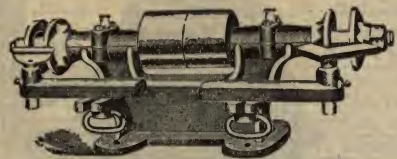
Munson and Robinson Plates. Extra Plates for 12-inch Mills @ \$12.00 per Set. For 18-inch Mills @ \$14.50 per Set. For 24-inch Mills @ \$19.50

Emery Grinders and Wheels, Saw Mandrels and Gummers

BENCH EMERY GRINDERS



Showing Style Nos. 2, 3 and 4

Showing Style No. 19 with Tight and Loose Pulleys
81E1720 Description and Net Prices

Style.....	2	3	4	19
Length Arbor, inches....	14	18	25	30
Bearings, inches.....	$\frac{7}{8} \times 2$	$1 \frac{1}{4} \times 3$	$1 \frac{1}{2} \times 5$	$1 \frac{1}{2} \times 5$
Pulleys, inches.....	$2 \frac{1}{4} \times 2$	4×3	$4 \frac{3}{4} \times 4$	4×3
Diameter Arbor, inches..	$\frac{3}{4}$	1	$1 \frac{1}{4}$	1
Weight, pounds.....	22	42	85	65
Net Price.....	\$6.75	\$11.25	\$14.75	\$16.75

CROWN SAW GUMMER



Style 09. Crown Saw Gummer

Will carry one wheel $10 \times 1 \frac{1}{2}$ inch, or smaller, provided with adjustable rest, has long bearings, well babitted and in every way a first-class tool.

Dimensions and Net Price

Arbor to table.....	$6 \frac{3}{4}$ inches
Diameter base.....	$8 \times 9 \frac{1}{2}$ inches
Length arbor.....	$13 \frac{1}{2}$ inches
Diameter arbor.....	$\frac{3}{4}$ inch
Pulley.....	$3 \frac{1}{2} \times 2 \frac{1}{2}$ inches
Weight (about).....	.25 pounds
81E1722 Net price (without wheel).....	\$6.50

CIRCULAR SAW MANDRELS

81E1724

Sizes and Net Prices

No.	Length, Inches	Diam., Arbor	Diam., Pulley	Face Pulley	Diam., Flange	Hole in Saw	Net Price Each
0	16	$\frac{7}{8}$	2	3	$3 \frac{1}{2}$	$\frac{3}{4}$	\$4.00
1	16	$1 \frac{1}{8}$	$2 \frac{1}{2}$	$3 \frac{1}{2}$	$2 \frac{1}{2}$	1	5.00
2	19	$1 \frac{1}{8}$	3	4	3	$1 \frac{1}{8}$	5.75
3	21	$1 \frac{1}{8}$	$3 \frac{1}{2}$	$4 \frac{1}{2}$	$3 \frac{1}{2}$	$1 \frac{1}{4}$	7.95
4	24	$1 \frac{1}{8}$	4	5	4	$1 \frac{1}{4}$	9.25
5	26	$1 \frac{1}{8}$	$4 \frac{1}{2}$	$5 \frac{1}{2}$	$4 \frac{1}{2}$	$1 \frac{1}{4}$	10.50
6	28	$1 \frac{1}{8}$	5	6	5	$1 \frac{1}{8}$	11.00
7	30	$1 \frac{1}{8}$	$5 \frac{1}{2}$	$6 \frac{1}{2}$	$5 \frac{1}{2}$	$1 \frac{1}{8}$	11.75
8	32	$1 \frac{1}{8}$	6	7	6	$1 \frac{1}{2}$	14.00
9	37	$1 \frac{1}{8}$	7	8	6	$1 \frac{1}{2}$	16.35
10	41	$1 \frac{1}{8}$	8	8	6	$1 \frac{1}{2}$	18.75
11	41	$2 \frac{1}{8}$	9	10	6	2	25.90

Unless otherwise ordered we will send mandrel with pulley on right hand side, Style "A," with left hand thread. State style wanted.



Style "A"



Style "B"

"ELCO" EMERY WHEELS



Perfect Balance
Fast Cutting

Made with Either Flat Face, Bevel Face
or Round Face.

GIVE CATALOG NUMBER WHEN ORDERING

These wheels are perfectly balanced, fast cutting and can be made to suit the purpose for which you intend using them. In ordering be sure to state purpose for which wheels are to be used, giving speed, diameter of wheel, thickness, size hole and shape of face.

We can furnish any other standard make of emery or corundum wheels desired. Prices on application.

Intermediate diameter and thicknesses take next higher price.

81E1726 Flat Faced Emery Wheels.

81E1728 Bevel Faced Emery Wheels.

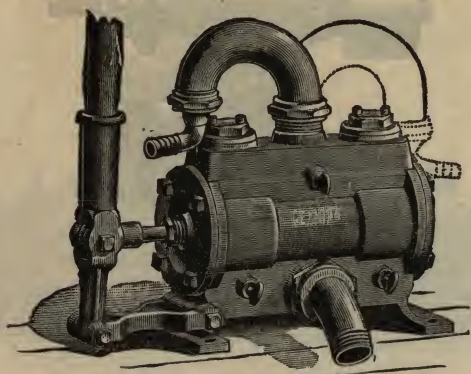
81E1730 Round Faced Emery Wheels.

Diam. in Inches	Thickness of Wheels in Inches										
	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1 \frac{1}{4}$	$1 \frac{1}{2}$	$1 \frac{3}{4}$	2	$2 \frac{1}{4}$	$2 \frac{1}{2}$	
2	\$0.27	\$0.34	\$0.41	\$0.45	\$0.52	\$0.59	\$0.66	\$0.72	\$0.79	\$0.84	
3	.36	.45	.54	.66	.75	.84	.95	1.04	1.13	1.22	
4	.50	.63	.75	.88	1.02	1.15	1.26	1.40	1.53	1.67	
5	.68	.86	1.02	1.20	1.35	1.53	1.71	1.87	2.05	2.21	
6	.86	1.08	1.31	1.53	1.76	2.01	2.23	2.43	2.68	2.93	
7	1.04	1.33	1.62	1.94	2.23	2.52	2.84	3.11	3.40	3.69	
8	1.22	1.60	1.98	2.34	2.75	3.11	3.51	3.87	4.26	4.64	
9	1.40	1.87	2.34	2.84	3.33	3.78	4.28	4.77	5.25	5.72	
10	1.62	2.21	2.79	3.38	4.01	4.59	5.18	5.76	6.35	6.93	
12	1.89	2.70	3.51	4.28	5.09	5.90	6.71	7.52	8.31	9.09	
14	2.21	3.24	4.32	5.36	6.39	7.43	8.51	9.54	10.58	11.61	
16	2.57	3.92	5.22	6.57	7.92	9.23	10.58	11.93	13.26	14.58	
18	2.97	4.64	6.30	7.97	9.63	11.30	12.96	14.63	16.27	17.91	
20	.....	5.54	7.56	9.63	11.66	13.73	15.75	17.82	19.87	21.92	

For Corundum Wheels add 10% to Net Prices.

Tank Pumps and Outfits

"FAVORITE" DOUBLE-ACTING TANK PUMP



Capacity, 2,000 Gals. per Hour.

The above cut shows our "Favorite" Tank Pump, which is well known to Threshermen in every part of the United States and Canada, having been in use for many years. The "Favorite" has a 5-inch cylinder polished as smooth as a gun barrel, with Brass Valve Seats, and is fitted with Brass Drip Plugs to let water out and prevent freezing. Arranged so that Handle can be attached to either end. The Suction is fitted for 2-inch Hose and the Discharge for 1-inch Hose. By removing the hose attachments the Pump is arranged so that iron pipe can be connected. Many Threshermen use the "Favorite" for filling tanks in attics and other purposes, which can be easily done by removing the Goose Neck on the Discharge, and iron pipe connections made in its place. The "Favorite" is arranged so that the Plunger can be taken out without removing the valves, which is an important feature. **Furnished complete, with Strainer, Nozzle and Clamps.** Weighs about 90 pounds.

81E2800	Net price, each.....	\$11.35
With Brass-Lined Cylinder.		
81E2802	Net price, each.....	\$14.85
PLUNGER LEATHERS.		
81E2804	High grade, 5 inch, each.....	\$0.35

TANK PUMP OUTFITS

"FAVORITE" TANK PUMP, with suction and Discharge Hose, Strainer, Nozzle Clamps, etc., complete, regular patterns.

81E2806	OUTFIT No. 1
Favorite Tank Pump, with 15 ft. 2-inch Wire Lined Suction Hose, smooth bore, 10 ft. 1-inch, 3-ply discharge hose, Clamps, Strainer and Nozzle.	
Price, Outfit No. 1.....	\$18.90
81E2808	OUTFIT No. 2.
Same as above, except 20 ft. 2-inch Wire Lined Suction Hose.	
Price, Outfit No. 2.....	\$20.90
81E2810	OUTFIT No. 3.
Same as Outfit No. 1, except 25 ft. 2-inch Wire Lined Suction Hose.	
Price, Outfit No. 3.....	\$22.90

Our Tank Pump Outfits are equipped with Gump's Celebrated, Guaranteed, Wire Lined Suction and Discharge Hose, which will give the best of satisfaction.

NOTE—For Price on other kinds and grades of hose, see Index.

MYER'S COG GEAR TANK PUMP

Capacity 2,000 Gallons per hour,
5 in. x 5 in. cylinder, Double Acting.



The Myers Low Down Tank Pump is fitted with a cog gear. This pump is so constructed that all the valves are located on top of the pump, each one under an individual cap, and can be reached without disturbing any of the others, a decided advantage in case of repairs.

The Valve Seats are brass, with Metal Poppet Valves, faced with rubber.

The Ports or Waterways throughout this pump are all 2-inch or over in diameter, allowing free passage of water.

The Cylinder is highly polished, with 1½-inch Piston Rod and heavy brass stuffing nut.

The Discharge and Suction Ports are fitted for hose, and threaded on the inside for 2-inch iron pipe.

A special feature of this pump is the cog gear handle arrangement, by means of which the power necessary to operate the pump is reduced from 25 per cent to 40 per cent over the old style plain handle. This will be appreciated by users of tank pumps, as it makes the pump work much easier than the old-style lever.

81E2812	Net price, each.....	\$11.75
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TANK PUMP OUTFITS

"COG GEAR" TANK PUMP, with suction and Discharge Hose, Strainer, Nozzle, Clamps, etc., complete, regular patterns.

81E2814	OUTFIT No. 10.
Cog Gear Tank Pump, with 15 ft. 2-inch Wire Lined Suction Hose, smooth bore, 10 ft. 1-inch, 3-ply discharge hose, clamps, Strainer and Nozzle.	
Price, Outfit No. 10.....	\$19.30
81E2816	OUTFIT No. 12.
Same as above, except 20 ft. 2-inch Wire Lined Suction Hose.	
Price, Outfit No. 12.....	\$21.30
81E2818	OUTFIT No. 13.
Same as Outfit No. 10, except 25 ft. 2-inch Wire Lined Suction Hose.	
Price, Outfit No. 13.....	\$23.30

WOVEN JACKET SUCTION HOSE

We can furnish any of our Tank Pump Outfits with Woven Jacket Suction Hose. See Index for price per foot.

HOSE AND THRESHER TANKS



Gump's Wire Lined Woven Jacket Hose

The same as our wire lined hose shown below except that it has a heavy woven cotton jacket which protects it and prolongs its life. No better hose made. Carried in stock, in 15, 20 or 25 feet lengths.

81 E 2900 1-Inch Inside Diameter Net Price	81 E 2902 2-Inch Inside Diameter Net Price
15 ft. lengths, each \$6.55	15 ft. lengths, each \$ 9.50
20 ft. lengths, each 8.75	20 ft. lengths, each 12.65
25 ft. lengths, each 10.90	25 ft. lengths, each 15.80

NOTE—Other lengths furnished at a slight advance in price.

GUMP'S
Wire
Lined
Suction
Hose
Guaranteed



A heavy smooth bore hose guaranteed to be unexcelled at any price. Furnished in 15, 20 and 25-foot lengths from Stock.

Special Lengths Made to Order. Prices on Application.

81E2904—Net Prices 1¼ and 1½ Inch Inside Diameter	81E2906—Net Prices 2-Inch Inside Diameter
1¼" 1½"	
15 ft. lengths \$4.25 \$4.85	15 ft. lengths, each \$ 6.25
20 ft. lengths 5.65 6.45	20 ft. lengths, each 8.25
25 ft. lengths 7.00 8.00	25 ft. lengths, each 10.25



Gump's
Hard
Rubber
Suction
Hose.

Not wire lined and is furnished only in ¾

and 1-inch sizes. Wire lined suction hose recommended on larger sizes. Stock sizes 10, 15, 20, 25 and 50-foot lengths. Intermediate sizes cut to order at 5 cents extra per foot.

79E2908 NET PRICE PER FOOT
¾-inch 4-ply.....\$0.23 1-inch 4-ply.....\$0.25

DISCHARGE HOSE FOR TANK PUMPS

Furnished in 10, 12½, 25 and 50-foot lengths. Intermediate lengths at 5 cents extra per foot.

81E2910 NET PRICES PER FOOT
1-inch 3-ply.....\$0.13 1-inch 4-ply.....\$0.17



Gump's Water Conducting Hose (Molded Rubber)
Made of seamless double braid molded rubber tube—

1¼ and 1½ sizes are Triple Braided. Unexcelled for strength, durability and flexibility.

81E2912	
½ inch, per foot....\$0.12	1 inch, per foot...\$0.25
¾ inch, per foot.... .13	1¼ inch, per foot... .37
¾ inch, per foot.... .14	1½ inch, per foot... .45

Galvanized Thresher Tanks



81E2918

Price Includes Bulkhead.

Heavy construction with all seams soldered on inside of tank. Double trusses brace the tank at four points on each side and evenly distribute the weight. No better Thresher Tank made.

Sizes, Capacities and Net Prices—F. O. B. Factory

No.	Depth Feet	Width Feet	Length Feet	Cap. Barrels	Price, 20 Ga.	Price, 18 Ga.	Price, 16 Ga.
1	2	3	8	9½	\$31.65	\$35.50	\$39.60
2	2	3	10	12	35.25	39.50	44.80
3	2½	3	10	15	36.75	41.50	46.25

NOTE—Prices do not include Trucks.

Fusible Plugs

These plugs are filled with Banca Tin and conform to U. S. Inspection Requirements.

Short plugs furnished when desired. Prices on application.

In ordering, please note!

½" Plug Fits Hole 13/16" Diam.

¾" Plug Fits Hole 1" Diam.

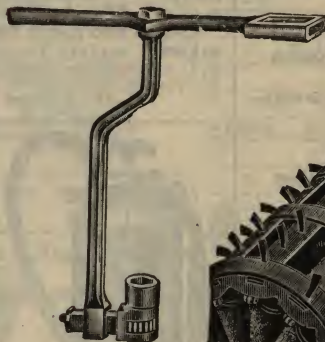
1" Plug Fits Hole 1-5/16" Diam.



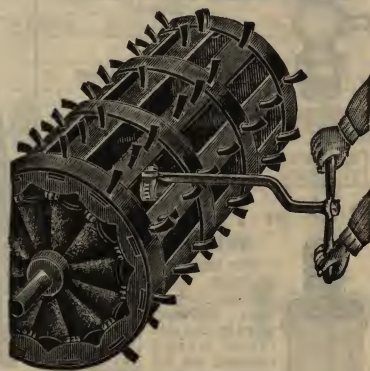
81E2916 NET PRICES, EACH

Size, inches.....	½	¾	1
Price, Each.....	\$0.75	\$1.00	\$1.25

Tiger Ratchet Cylinder Wrench and Tooth Straightener Combined



Guaranteed to Tighten Every Tooth



Improved Handle. Combines a ratchet cylinder wrench and tooth straightener. **GUARANTEED SATISFACTORY, OR MONEY REFUNDED.** In ordering, state for what make of machine, outside diameter of nuts and say whether square or hexagon.

81E3022 Price, each.....\$3.75
Extra Chucks, square or hexagon, each.. .60

SPRAYERS, HOSE AND SUPPLIES

Sherman's Brass Hose Clamps

81E1930 For Water Hose



Size Ins.	Price Dozen	Price Each
1/2	\$0.45	\$0.05
3/4	.50	.06
1	1.50	.15
1 1/4	1.85	.18
1 1/2	2.25	.22
2	3.00	.30

Note—When ordering, state whether to be used on 3, 4, or 5-ply hose.

81E1933 For Steam Hose

3/4 inch, 4-ply, each.....	\$0.15
1 inch, 4-ply, each.....	.18
1 1/4 inch, 4-ply, each.....	.20
1 1/2 inch, 5-ply, each.....	.25
1 3/4 inch, 4-ply, each.....	.25
1 1/2 inch, 5-ply, each.....	.30

Double Hose Clamps



For use on Hose menders. Does away with two clamps. Only one bolt to tighten and the hose is mended.

81E1934

Size	Doz.	Each
1/2 inch.....	\$0.75	\$0.07
3/4 inch.....	.85	.08

Steam Hose Couplings



Brass Iron Pipe Threadse

81E1935 Price, Pair

Size—Inches	1/2	3/4	1	1 1/4	1 1/2
	\$0.65	\$0.70	\$0.75	\$1.00	\$1.25

Brass Hose Couplings



81E1936 Net Prices Each

1/2 inch \$0.12	1 1/4 inch \$0.50
3/4 inch .13	1 1/2 inch .70
1 inch .25	2 inch 1.25



Compression Gauge Cocks

Prices Include Stuffing Boxes

78E2268 Sizes and Net Prices

Number.....	383	384	385
Pipe Thread, in.	3/8	1/2	3/4
Price, each.....	\$0.70	\$0.75	\$0.80

Hose or Pipe Strainers

All Brass

For use with injectors and ejectors, to prevent passage of dirt from being stopped up by pieces of dirt.

Net Prices

81E2262 For Pipe.

Size pipe, 3/4 1 1 1/4 1 1/2 2	
Price, each.....	\$0.50 \$0.60 \$0.75 \$1.20 \$2.00

81E2264 For Hose.

Size hose... 3/4 1 1 1/4 1 1/2	
Price, each.....	\$0.50 \$0.60 \$0.80 \$1.25

"GUMP'S" STEAM HOSE

For Steam and Hot Water



Our "Gump" Brand is made to withstand the high temperature of steam and hot water as long as it is possible for good material and workmanship to make it.

81E1931 Net Price Per Foot

Size Inch	4 Ply	5 Ply	6 Ply	8 Ply
3/4	\$0.35	\$0.43	\$0.52	\$0.70
1	.43	.53	.64	.85
1 1/4	.52	.65	.78	1.04
1 1/2	.62	.78	.93	1.25

Table of Steam Pressures and Corresponding Temperatures

Steam Gauge	Degrees Fahrenheit	Steam Gauge	Degrees Fahrenheit
0	212	60	307
5	228	70	316
10	240	85	327
20	259	100	338
30	274	125	353
40	287	150	366
50	298	200	388

Table of Maximum Pressures for Steam Hose

Size Inch	4	5	6	8
3/4	60 lbs.	70 lbs.	80 lbs.	100 lbs.
1	50 lbs.	60 lbs.	70 lbs.	90 lbs.
1 1/4	40 lbs.	50 lbs.	60 lbs.	80 lbs.
1 1/2	30 lbs.	40 lbs.	50 lbs.	70 lbs.
2	20 lbs.	30 lbs.	40 lbs.	60 lbs.

BLACK SNAKE GARDEN HOSE



Has a seamless circular braiding. Impossible for the plies or fabric to unwrap.

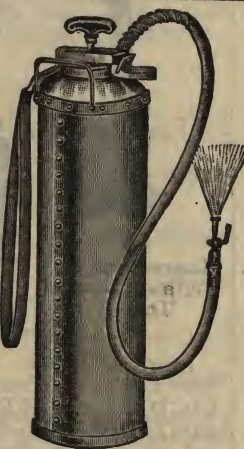
Each fabric complete separate hose, built above the other. Superior to hose made of a single piece of duck wrapped to several thicknesses.

Stronger than ordinary hose of double the number of plies. Guaranteed that it may be tied in knots without injury. (Nozzle not included in price.)

Price, in 25 and 50 Foot Lengths

Coupled with 3/4-inch Standard Couplings.

81E1937	
3/8" coupled 25 feet length, net.....	\$3.50
3/8" coupled 50 feet length, net.....	6.75
The Standard Size of Lawn Hose	



Compressed Air Sprayer

Will stand the hardest usage and will last for years. Tank of heavy galvanized steel, closely riveted and heavily soldered. Air pump made of seamless brass. Best quality acid proof hose.

Two nozzles—one for spraying and one for straight stream. One filling will spray for from 10 to 15 minutes. Made in three sizes, for whitewashing, coldwater painting and all kinds of spraying and disinfecting.

81E3051—4 Gal. size 3 ft. hose.....	\$5.50
81E3052—6 Gal. size 4 ft. Hose.....	6.50
81E3053—9 Gal. size 6 ft. Hose.....	7.00

Diamond Spray Nozzles



Our Diamond Spray Nozzle accurately fitted, well made and nicely finished. A quarter turn will change the delivery from full stream to fine spray.

81E1938 Price, 3/4-inch, each.....\$0.60 Price, 3/4-inch, dozen lots, per doz 6.00

Plain Hose Nozzles



81E1939 Net Prices.

Fig. No. 97—Hose Pipe Thread

Size, ins...	3/4	1	1 1/4	1 1/2
Lgth., ins..	6	4	8	12
Price, ea.	\$0.35	\$0.25	\$0.45	\$0.90 \$1.10

Iron Hose Menders



81E1940 Net Prices

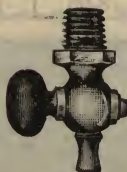
1/2-inch, each, \$0.05	dozen, \$0.50
3/4-inch, each, .05	dozen, .60
1-inch, each, .07	dozen, .70

Brass Hose Menders



81E1941 Net Prices Each

1/2-inch.....	\$0.12	1 1/4-inch....	\$0.30
3/4-inch.....	.16	1 1/2-inch....	.40
1-inch.....	.20	2-inch.....	.70



Air Cocks

With either T handle as illustrated or Lever handle.

Net Price Each

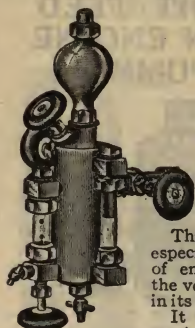
Size, Ins.	81E2266 T Handle	81E2267 Lever Handle
1/8	\$0.18	\$0.25
1/4	.20	.27
3/8	.22	.30
1/2	.27	.35

"ELCO" ROOFING



Complete stock of all grades Prices on application

LUBRICATORS, GAUGES, VALVES AND SUPPLIES



"Detroit" Improved Standard Lubricator

For Stationary Engines
Double and Single Connection

This Lubricator is intended especially for the better class of engines, and represents the very highest development in its line.

It is the most convenient, most durable and most reliable sight-feed lubricator made, and has been used exclusively for several years past by upwards of nine-tenths of the prominent American builders of stationary engines.

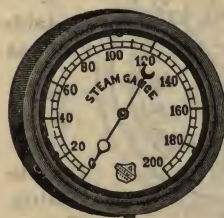
Price and Capacity

81E2150

Sizes.....	½ Pint	½ Pint
For Cylinder.....	Under 10"	10 to 12"
Pipe Thread.....	½	½
Price Each:		
Brass, Dbl. Con..	\$ 9.75	\$10.00
Brass, Sgle. Con..	10.00	10.30
Glasses, Each:		
Sight-Feed.....	.25	.25
Gauge.....	.25	.25
Sizes.....	1 Pint	1 Quart
For Cylinder.....	12 to 18"	18 to 30"
Pipe Thread.....	½	½
Price, Each:		
Brass, Dbl. Con..	\$11.90	\$14.50
Brass, Sgle. Con..	12.10	14.80
Glasses, Each:		
Sight-Feed.....	.25	.25
Gauge.....	.25	.25

Note.—The above prices are for Single and Double Connection Lubricators. Be sure to state which is desired—unless stated we will ship double connection.

Steam or Pressure Gauge



Single Spring
For Stationary
Boiler

Adapted for steam, air, gas, water and any fluid-pressure that will not affect its brass tube spring; and is regularly made for any graduation not above 500 pounds.

All our gauges are accurately graduated by open mercury column, have non-corrosive movements, and are warranted correct before leaving the Works.

When ordering do not fail to state the pressure per square inch to which you wish the gauge graduated.

No steam gauge warranted if used without a siphon of sufficient capacity to fill the gauge spring with water and keep it cool. Cock included with each gauge.

81E2166

Net Prices

Style 500

Size Dial, Inches	Iron Case Brass Ring, Price, Each	Brass Case, Price, Each
3½	\$ 2.25	\$ 5.50
4½	2.45	6.00
5	2.85	6.60
5½	5.00	7.20
6	6.50	9.60
6¾	8.00	12.00
8½	11.00	16.00

"Swift" Lubricator Will Flash Sight Feed



This Lubricator has been invented and perfected by an engineer of 30 years' practical experience. It is simple in its design and positive in its operation. Has no outside tubes to be disarranged or broken.

The Single Connection type will feed any oil in the coldest weather.

Single Connection for Tract. and Port Engines, Steam Pumps, etc.

Double Connection for Stationary Eng., Steam Pumps, etc.

PRICE AND CAPACITY

Single Connection—Class F. S. C.

81E2152

Size.....	½ Pint	½ Pint	Pint
Pipe Thread.....	¾	¾	¾
Price, Each.....	\$3.75	\$4.00	\$6.00

Double Connection—Class F

81E2154

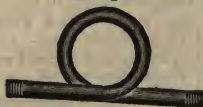
Size.....	½ Pint	½ Pint	1 Pint
Pipe Thread.....	¾	¾	¾
Price, Each.....	\$3.00	\$3.25	\$4.65

Pipe Syphons

For Use on Our Single Spring Steam
Gauges

81E2158

Fig. 557



Price, ¼-inch Iron Pipe, each.....\$0.25

Price, ¼-inch Brass Pipe, each..... 1.00

Note.—A Siphon should always be used in connection with a steam gauge.



Steam Gauge Cocks

T Handle
Finished Brass

81E2160

Price, ¼-inch Pipe,
each.....\$0.50

Gauge Glass Cutter Genuine "Chesterton"



This is a very convenient tool for accurately and easily cutting Gauge Glasses to any desired length.

81E2162. Price, each.....\$2.00

Favorite Gauge Glass Cutter



81E2164. Price, each.....\$0.35



Moulded Round

Gauge Glass Gaskets



Cut Square

Edge Price, Moulded Round Edge

81E2168 ½, ¾ or 1-inch.....Per dozen....\$0.25

81E2170 ½, ¾ or 1-inch.....Per dozen....\$0.20



Brass Gate Valves

Straight Way

Brass, with Gland Wedge Gate. Brass Seat, Non-rising Stem.

Recommended for use with Fire Apparatus because of its free opening.

Style 438—Screwed
Net Prices

Size, in.....	¾	1	1½	2
Price, ea.....	\$0.75	\$0.85	\$1.00	\$1.40
Size, in.....	1½	2	2½	3
Price, ea.....	\$1.85	\$2.50	\$3.65	\$6.50

Globe and Angle Valves



Brass
with
Iron
wheel.



No. 1 Globe

81E2252

Either No. 1 or No. 2, Each

Size....	¾	1	1½	2	2½	3
Price....	\$0.45	\$0.45	\$0.50	\$0.60	\$0.75	\$1.10
Size....	1½	2	2½	3	4	6
Price....	\$1.50	\$2.10	\$3.15	6.00		



Standard Check Valves

Style No. 20. Plain
Check

Style No. 28. Check
with Drip.

81E2256

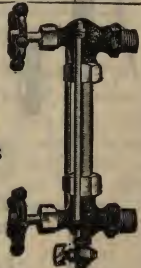
Plain

Net Prices

Size.....	¾	1	1½	2	2½	3
No. 20, ea....	\$0.40	\$0.40	\$0.45	\$0.55	\$0.70	
Size.....	1	1½	2	2½	3	4
No. 20, ea....	\$1.00	\$1.35	\$1.90	\$2.85	\$5.40	
Size.....	½	¾	1	1½	2	3
No. 28, Each	\$1.30	\$1.55	\$1.90	\$2.45		



Water Gauges



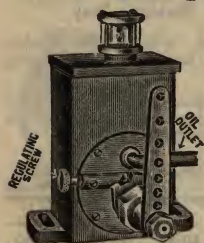
Net Prices, Each

Size Glass	Pipe Thread, Inch	81E2172 Rough Body, Iron Wheel	81E2174 Finished Body, Wood Wheel
½x12	¾	\$1.75	\$2.25
¾x12	1	1.85	2.50
1x16	1½	2.75	3.00

OIL PUMPS, GAUGES, FLUE BLOWERS, ETC.

"PRACTICAL" FORCE-FEED OIL PUMP

For
Stationary
and
Traction
Engines.



A SCREW-FEED MECHANICAL LUBRICATOR for steam and gasoline engines, steam pumps, air compressors, etc.; also for oiling the cylinder boxes of threshing machines, hullers, shredders, etc. Pumps any grade of oil, cold or hot; feeds it regularly and positively; in just the amount. When attached to an engine, it starts and stops with the engine, and the oil is fed in proportion to the speed of the engine—the FEED IS CONTINUOUS AND POSITIVE. Fitted with sight feed. Will fit any engine, right or left hand.

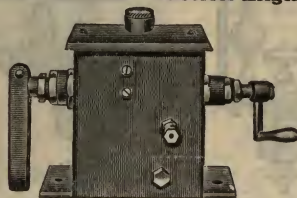
Price includes pump complete with an adjustable driving rod, driving arm, special ball check valve, and full printed instructions for attaching and operating.

Net Prices with Sight Feed

	Each
81E1925 Capacity 1 qt.....	\$12.60
81E1926 Capacity 2 qts.....	14.40

"MADISON-KIPP" VALVELESS LUBRICATOR

Model 50—For Traction Engines



"MADISON-KIPP" valveless lubricators have long been favorites because of their reliability. No small part of their dependability is due to the patented pumping principle which uses no valves and is free from clogging, which insures a steady and continuous feed. The "Kipp" valveless action is accomplished by a double eccentric which imparts an oscillating as well as a reciprocating motion to the plunger. The oscillating motion of the plunger opens and closes the intake and discharge ports as the plunger raises and lowers.

Slight particles of foreign matter in the oil cannot interfere with the oil delivery. IT WILL ALSO GIVE POSITIVE LUBRICATION EVEN IN THE COLDEST TEMPERATURE. The adjustment enables absolute regulation of the oil flow. All working parts are placed inside the tank and work in oil.

81E1927 Net Price, Blind Feed.	
Capacity 4 Pints, Single Feed.....	\$15.00
81E1928 Net Price, with Sight Feed	
Capacity 4 Pints, Single Feed.....	\$18.00

"MANZEL" FORCE AND SIGHT FEED TRACTION ENGINE OIL PUMP



Feeds regularly and requires no attention. Guaranteed to work at any temperature, using any kind of oil. LARGE SIGHT FEED. Will feed from one to fifteen or twenty drops with each stroke. Regulated while engine is running. GAUGE GLASS, shows amount of oil in reservoir all the time. Can be used as hand pump. HEATING CHAMBER to warm the oil in cold weather. HARDENED DROP FORGED TOOL STEEL PAWLS—NO STUFFING BOXES—NO PACKING—DUST PROOF—SIMPLE—DURABLE and ECONOMIC.

RIGHT HAND PUMP—NET PRICES

1½ Pint, Single Feed, Black Finish...	\$12.75
3 Pint, Single Feed, Black Finish.....	15.00
3 Pint, Double Feed, Black Finish....	19.50
2 Quart, Three Feed, Black Finish....	27.00
2 Quart, Four Feed, Black Finish....	31.50

RED JACKET STEAM FLUE BLOWER

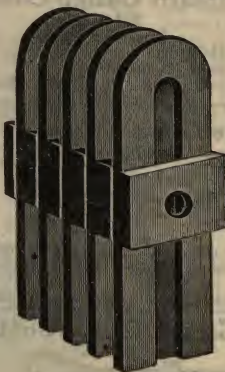
Always reliable. Simple in construction. Easy to operate. It economizes fuel. Increases boiler capacity.

Directions for Ordering. Standard sizes have 18 inches of pipe between the conical head and the valve. If distance between boiler front and tube sheet exceeds this, state length required. Give diameter of fire box and height from tube sheet to bottom of furnace door on upright boilers. State length of fire box on locomotive boilers.

81E2950 Sizes and Prices

Number of Blower	Outside Diam. Tube	Price, Each	Size Hose Required	Guaranteed Steam Hose Per Foot
1	2 to 2½	\$4.00	½"	\$0.28
2	2½ to 3	5.00	¾"	.35
3	3 to 3½	6.00	1"	.43
4	3½ to 4	7.00	1½"	.43
5	4 to 4½	8.00	1¾"	.52
6	4½ to 6	10.00	1½"	.62

SINGLE HORSE SHOE MAGNETS



For
Removing
Wire and
Pieces of
Iron or
Steel from
Grain
Before
Grinding.

Magnets should be placed not more than one inch from side to side, and at least two gangs should be used; if the spout is very steep, three gangs will be needed. When not in use the "keepers" should be placed on the magnets.

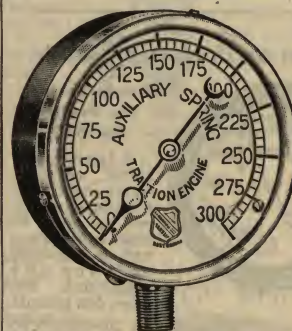
Length, 10 inches.

Weight, 2 to 2½ pounds.

81E932 Net Price

Single Magnets, each.....	\$0.85
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TRACTION ENGINE GAUGES



For All
Types
of
Portable
Engines

Auxiliary
and
Double
Spring
Types.

The Double Spring Type of gauge is fast replacing the auxiliary type on portable engines. Iron Case with close brass ring. Double Ashcroft spring and hard geared movement. Absolutely moisture and dust proof.

81E2956 "Double Spring" Type—4½ in. dial, 300 pounds, ¾ in. male connection without cock.	
Net price, each.....	\$6.50

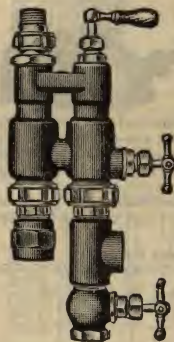
The AUXILIARY SPRING TYPE is similar to the Double Spring except that it has an Ashcroft Auxiliary Spring and hard geared movement. All gauges have non-corrosive movements and guaranteed accurate. A Syphon of sufficient capacity to keep tube spring filled with water while under pressure should be used with each gauge.

81E2958—AUXILIARY SPRING TYPE—4½ in. dial, 300 pounds, ¾ in. male connection without cock.	
Net price, each.....	\$4.95

INSPIRATORS, INJECTORS AND GAUGE GLASSES

"HANCOCK" INSPIRATOR

"STATIONARY" TYPE



The Hancock Inspirator, as illustrated, is almost too well known to need further description. It works with high or low steam pressures on all lifts up to 25 feet, or when taking water under a head, with hot feed water as well as cold. For all steam pressures and for all conditions its operation is the same, and it requires no adjustment for varying steam pressures.

The principle employed is the simplest. A lifting apparatus lifts the water and delivers it to the forcing apparatus, which in turn, forces it into the boiler. The lifting apparatus, acting as a governor, delivers to the forcing apparatus the required amount of water to properly condense the steam under all conditions.

81E2202

Net Price-Size and Capacity

Sizes	Price Each Net	Pipe Connections			Capacity per hour with 60 pounds steam pressure	Horse Power For the ordinary type of boiler and engine
		Steam	Suction and deliv.	Overflow		
7½	\$ 9.00	¾	¾	1½	60 gals.	4 to 6
8¾	10.25	¾	¾	1½	90 gals.	6 to 8
10	11.40	¾	¾	1½	120 gals.	8 to 10
12½	14.75	¾	¾	1½	220 gals.	15 to 30
15	17.00	¾	¾	1½	300 gals.	30 to 40
17½	22.80	¾	¾	1½	420 gals.	40 to 60
20	25.65	¾	¾	1½	540 gals.	60 to 75
22½	31.25	1	1½	1	720 gals.	75 to 90
25	34.00	1	1½	1	900 gals.	90 to 120

Note.—We send a flat strainer with each of these inspirators, sizes 7½ to 20, inclusive.



GAUGE GLASSES

81E2204

Sizes and Prices Net

Length Inches	½ inch		¾ inch		1 inch	
	½ doz.	Doz.	½ doz.	Doz.	½ doz.	Doz.
10	\$0.75	\$1.40	\$0.80	\$1.50	\$0.95	\$1.80
11	.80	1.52	.85	1.62	1.05	1.98
12	.90	1.70	.95	1.80	1.15	2.16
13	.95	1.82	1.00	1.92	1.25	2.40
14	1.10	2.00	1.15	2.10	1.35	2.58
15	1.15	2.11	1.20	2.22	1.45	2.76
16	1.20	2.30	1.25	2.40	1.55	2.94
17	1.25	2.42	1.30	2.52	1.65	3.12
18	1.35	2.60	1.40	2.70	1.75	3.30

"FIRMA" COMPOUND WATER GAUGE GLASSES

These glasses are unbreakable from natural causes. They are not affected by a drop of water, a flake of snow, or a sudden draft of cold air coming in contact with the glass while it is hot. The great importance of this will be appreciated by every engineer.

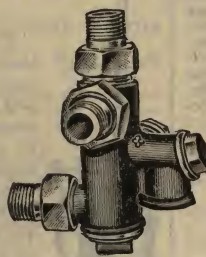
81E2206

Net Prices Per Dozen

Length Inches	½ and ¾ Inch Per Dozen	¾ Inch Per Dozen
10	\$4.00	\$5.60
12	4.80	6.72
14	5.28	7.68
16	6.24	9.12
18	6.88	9.76
20	7.20	11.20
22	8.80	11.84
24	9.60	13.44

We do not sell less than ½ dozen, or one package.

"PENBERTHY" AUTOMATIC INJECTOR



For all around use and Especially adapted for Traction and Portable Engines. Every "Penberthy" Injector is carefully tested before leaving the factory and no Machine is allowed to go out that will not work on the following points, while nearly all of them will do much better.

Start Low.

20 to 22 lbs. steam on 3 foot lift

Work High.

165 to 170 lbs. steam on 3 foot lift.

Lift. Water

20 to 24 feet on 60 to 80 lbs. steam.

Handle Hot Water.

125 degrees to 130 degrees at 60 to 80 lbs. steam. 115 degrees to 120 degrees at 100 lbs. steam. 95 degrees to 104 degrees at 125 lbs. steam.

Regular Pattern

Style Left and Back.

Suction Left, overflow front, Discharge Back.

81E2208

Net Prices and Capacity

Size	Price	Horse Power Based on Ordinary Tub. Boiler.	Pipe Connection	Capacity per Hour, 1 to 3 feet lift, 60 to 85 lbs. Steam Pressure	
				Maximum	Minimum
O	\$ 5.75	3 to 6	¼ inch	60 gal.	40 gal.
OO	6.24	4 to 8	½ inch	80 gal.	55 gal.
A	7.00	8 to 16	¾ inch	135 gal.	70 gal.
AA	7.80	12 to 22	1 inch	180 gal.	100 gal.
B	9.75	17 to 32	1½ inch	260 gal.	140 gal.
BB	11.70	20 to 45	2 inch	355 gal.	170 gal.
C	15.60	40 to 65	2½ inch	475 gal.	300 gal.
CC	17.55	45 to 80	3 inch	600 gal.	350 gal.
D	21.45	50 to 100	3½ inch	800 gal.	425 gal.

A Strainer Furnished With Every Injector

The Penberthy Injector can be furnished with special connections as required. Regular pattern always sent unless otherwise ordered

"METROPOLITAN" Injector "Model X"

This injector is too well known to require description. It is absolutely automatic under all conditions and will re-start immediately after interruption of steam or water supply. Strong and durable. Fully guaranteed.

81E2960

CAPACITIES AND NET PRICES

Sizes	Net Price Each	Sizes of all Pipe Connections	Capacity 65 to 90 lbs. 2 ft. Lift Gals. per Hour	Horse-power for Ordinary Type Boiler
20	\$6.75	¾ in.	60	2 to 6
30	7.20	1 in.	80	4 to 8
35	8.10	1½ in.	140	8 to 16
40	9.00	2 in.	190	16 to 23
50	11.25	2½ in.	270	23 to 30
60	13.50	3 in.	370	30 to 45
70	18.00	3½ in.	490	45 to 65
80	20.25	4 in.	620	65 to 80

A flat strainer is furnished with each injector.



81E2954

PENBERTHY 'XL96' Ejector.

Lifts 22 to 25 feet, elevates to 125 feet, with no lift on 30 to 180 lbs. pressure.

Size Number	Price Each	Pipe connection		Capacity perhour with 40 to 65 pounds. Steam, 3-foot Lift.
		Steam	Suction and Delivery	
No. 1. Brass	\$2.40	¾	1½	240 gallons.
No. 2. Brass	3.00	1	2	500 gallons.
No. 3. Brass	4.50	1½	3	840 gallons.
No. 4. Brass	6.00	2	4	1350 gallons.
No. 5. Brass	7.50	2½	5	1950 gallons.

Oil Cans, Waste, Grease, Graphite, etc.

Copper Plated Steel Oil Cans

Made from 20 gauge Cold Rolled Steel, with high grade **Clock Spring Steel Bottoms**, Heavily Electro **Copper Plated** inside and out. Spout connections are turned from **solid bar brass** containing cut threads. All spouts are interchangeable.



81E1900

Sizes	Cap'y Pints	Diam. Inches	Spout Inches	Price, Each
13A	1 1/2	3 3/4	5	.20
14	1 3/4	3 3/4	9	.25
14AA	1 3/4	3 3/4	5	.28
14B	1 3/4	3 3/4	9	.30
15A	1 1/2	4 1/4	5	.33
16	1	4 1/4	9	.39

Machine Oilers

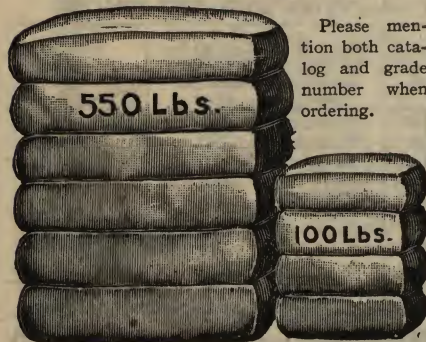
Copper-Plated Steel

Drawn seamless from extra heavy cold rolled steel, double thickness around the lower edge. Bottom clock spring steel **Spout Connection** turned from bar brass with cut threads. An excellent machinery oiler. Capacity 1/4 pint, Diameter 3 inches. Spout 5 inches.



Each Dozen
81E1922 Price.....\$0.20 \$2.00

Cotton Waste



Please mention both catalog and grade number when ordering.

81E1824 Bale Lots

No. 1 Extra White.....	Per Lb. \$1.15
No. 2 White.....	.13
No. 1 Fancy Colored.....	.12
No. 1 Regular Colored.....	.11

81E1825 Less than Bale Lots

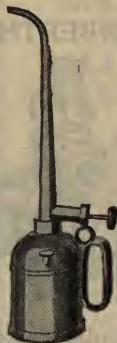
	5 lbs.	10 lbs.
No. 1 Extra White.....	\$1.00	\$1.80
No. 2 White.....	.90	1.70
No. 1 Fancy Colored.....	.85	1.60
No. 1 Regular Colored.....	.80	1.50

	25 lbs.	50 lbs.
No. 1 Extra White.....	\$4.25	\$8.00
No. 2 White.....	3.75	7.00
No. 1 Fancy Colored.....	3.50	6.50
No. 1 Regular Colored.....	3.25	6.00

We carry complete stocks of **Leather, Rubber, Balata, Stitched Canvas and Cotton Belting**. See Pages to 3-13 Inc.

Improved Cannon Oilers

The Cannon Oiler is the only one having a force pump attachment without the use of any packing nuts. Will never clog up as spout is always full of oil, is controlled by the operator regardless of the position of the can. One drop or a tablespoonful discharges at the will of the operator. Forces oil up to the bearing from any convenient position.



81E1918 Sizes and Net Prices

Sizes	Cap'y Pints	Diam. In.	Hgt. In.	Spout In.	Tin, Price, Each
0	1	3 1/2	9 1/4	9	\$1.15
1	1	3	12 1/2	8	1.15
2	1 1/2	1 1/2	17 1/4	12	1.20
2 1/2	2	4	18	12	1.25
3	2	4	26	20	1.30

Copper-Plated Steel Fillers



Made of steel drawn seamless in one piece. **Spouts** have large opening to deliver a large volume of oil.

81E1920

Size	Capac'y	Diam. Inches	Height Inches	Price, Each
210	1 Qt.	5	5	\$0.95
211	2 Qt.	6	6	1.25

"Dixon's" Flake Graphite

A perfect lubricant.

Used in all cases where the service required of a lubricant is very severe.



81E1822

In 1 lb. paper box, each net.....	\$0.50
In 5 lb. tin cans, each, net.....	2.00
In 10 lb. tin cans, each, net.....	4.00

Justrite Oily Waste Can



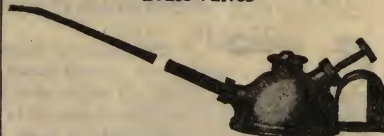
Convenient, Clean and Durable. To raise cover, press on handle with foot; both hands are free cover closes automatically

Made in accordance with the rules of the National Board of Fire Underwriters.

81E1916 Net Prices

No.	Capacity	Size	Each
1	6 gal.	11 1/4 x 13	\$4.25
2	8 gal.	12 1/2 x 14	4.75
3	10 gal.	13 1/2 x 15	5.25

Automotive Pump Oilers Fitted with Cannon Air Tight Brass Valves



The spout may be detached and the oiler packed in a small tool box; the oil cannot leak out when the spout is removed. Spout lengths are interchangeable and adjustable to any angle.

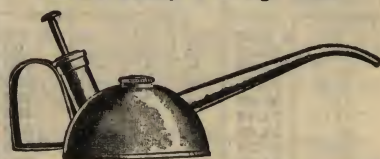
The body is drawn seamless of one piece of heavy steel, brightly copperized and the bottom is double sealed oil tight.

81E1912 Size and Net Prices

Sizes	Cap'y Pints	Diam. In.	Hgt. In.	Spout In.	Steel Price, Each
A1	1 1/2	3	8 1/2	5	\$1.75
A2	1 1/2	3	8 1/2	9	1.80
A3	1	4	1	5	1.85
A4	1	4	1 1/2	9	1.90

Extra Spouts with couplings, each.....\$0.50
Flexible Spouts, each.....1.00

The Handy Pump Oiler



It pumps the oil by means of a brass pump fitted with air tight valves. It pumps oil at any angle, and in any quantity desired. Made of steel, drawn seamless in one piece. Capacity, 1/2 pint, diameter 4 inches, spout 4 1/4 inches; height 3 1/2 inches. Finished in light lacquered steel.

81E1904 Price, each.....\$0.95

Lubricating Oils



Net Prices per Barrel—50 Gals.

Furnished in barrels and half-barrels only.	
Engine Oil... Medium	\$19.65
Machine Oil....	19.50
Gas Engine Oil	20.50
Cylinder Oil.....	28.50

"Elco" Automobile Oil

A high refined Automobile Oil. Use the proper weight for your machine and you will agree that "Elco" is equal to the best at a saving.

Light—Winter..	\$22.75	Heavy	\$30.00
Light—Summer	25.50	XHeavy	32.50
Medium.....	28.00	XXHeavy	35.00

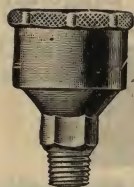
Above price include wood barrels, half barrels furnished at one-half the price of barrel lots.

"Elco" Cup Grease or Hard Oil

81E1816. Especially adapted for **Threshers, Engines, Line Shafting in Mills and Factories** and all high speed journals that are intended to run cool.

In 5 pound cans, price each, net.....	\$0.65
In 10 pound cans, price each, net.....	1.20
In 25 pound cans, price each, net.....	2.50

GREASE CUPS & OIL CUPS



Plain Brass Grease Cups

Made entirely of brass. No flat surface where grease can stick and clog.

81E1952
Capacities and Net Prices

Size	Inside Diam.	Pipe Thread	Cap., Oz.	Price, Each	Price, Doz.
000	3/4"	1/8"	1/4	\$0.09	\$.90
00	1"	1/8"	1/2	.12	1.20
0	1 1/4"	1/8"	3/4	.18	1.80
1	1 1/2"	1/8"	1	.23	2.30
2	2"	1/8"	2	.35	3.50
3	2 1/2"	1/8"	3 1/2	.60	6.00
4	3"	1/8"	5	.95	9.50

Automatic, Pressed Steel Grease Cups

The cups are of the same general construction as the Spring Compression Grease Cups listed opposite, except that they are made of pressed steel, instead of brass.

Please note information regarding size pipe threads in right hand corner of page when ordering.

81E1954. Sizes and Prices

Size	Diam.	Pipe Threads	Cap., Oz.	Price, Each
300	1"	1/8"	1/2	\$0.50
30	1 1/4"	1/8"	1	.57
31	1 1/2"	1/8"	1 1/2	.60
32	2"	1/8"	3	.80



Gas Engine Lubricators

Top and bottom plates cast brass. The sight feed post is large and strong—contains a glass one inch in diameter. Both the set feed and the stop feed features are employed.

81E1962
Sizes and Net Prices

Number	202	203	204	205
Outside diam. Glass, inch.....	2	2 1/4	2 1/2	3
Height Glass, Inch.....	1 7/8	2 3/8	2 3/4	3
Capacity, ounces.....	2 1/2	4	5	10
Shank Pipe, inch.....	3/8	3/8	3/8	1/2
Price, each.....	\$1.25	\$1.40	\$1.55	\$1.80
Glasses, each.....	.55	.60	.65	.75
Gaskets, each.....	.05	.06	.07	.08

Plain Brass Oilers

Made of brass, nicely polished, with finished threads. Note information, in lower right hand corner, for sizes pipe thread.

81E1970 Net Prices

Size	Diameter Inch	Pipe Inch	Price, Each
0	3/4"	1/8"	\$0.25
1	1"	1/8"	.30
2	1 1/4"	1/8"	.35
3	1 1/2"	1/8"	.40
4	2"	1/8"	.45
5	2 1/2"	1/8"	.70
6	3"	1/8"	.90
8	2"	1/2"	1.30

Pressed Steel Grease Cups



With Steel Spring Lock

Fitted with a simple and effective device for preventing the cap from jarring off. The locking mechanism operates in the grease and is free to act at all times regardless of the hardness of the grease or the pressure which it may be under.

81E1950 Sizes and Net Prices

Size	0001	001	011	012	013
In. diameter...	1	1 1/4	1 1/2	2	2 1/2
Pipe Thread...	1/8"	1/8"	1/8"	3/8"	1/2"
Capacity, oz.	1/2	3/4	1	2	3 1/2
Price, each....	\$0.10	\$0.12	\$0.14	\$0.19	\$0.25
Price, dozen...	1.00	1.20	1.40	1.90	2.50

Spring Compression Grease Cups

Positive Force Feed.

Is automatic in its operation. The rate of feed can be regulated by the screw T. The base slopes to the center on the inside, insuring that all the grease will be fed, and it can be screwed into place on the bearing either by using a wrench on the hexagon, or by using a flat piece of iron with the lugs SS.

Finished Brass.

81E1956 Sizes and Net Prices

Size	Inside Diam.	Height Ins.	Pipe Thread	Cap. Oz.	Price, Each
60	1 1/4"	4 3/4"	1/4"	1	\$1.20
61	1 1/2"	5 3/8"	1/4"	1 1/2	1.50
62	2"	6 1/8"	3/8"	3 1/4	1.90
63	2 1/2"	7 1/2"	1/2"	6	2.60
64	3"	8 3/8"	1/2"	10	2.90



Glass Body Oil Cups

With Set Feed.

These oilers are very simple in design and at the same time are strong and durable, being made from spun brass. The jam nut or set-feed feature holds the regulating stem at the point where it is set to feed at the proper rate.

81E1964 Sizes and Net Prices

Number	0	1	1 1/2
Outside diam. Glass.....	1 1/4"	1 1/2"	1 3/4"
Height Glass.....	1 1/8"	1 3/8"	1 5/8"
Capacity, ounces.....	3/4	1	1 1/2
Shank Pipe Thread.....	1/8"	1/8"	1/4"
Price, each.....	\$0.60	\$0.75	\$0.80
Glasses, each.....	.35	.40	.45
Gaskets, each.....	.05	.05	.05

Number	2	3	4
Outside diam. Glass.....	2	2 1/4	2 1/2
Height Glass.....	1 7/8"	2 1/8"	2 3/8"
Capacity, ounces.....	2 1/2	4	5
Shank, Pipe Thread.....	3/8"	3/8"	1/2"
Price, each.....	.90	1.00	1.15
Glasses, each.....	.55	.60	.65
Gaskets, each.....	.05	.05	.05

In ordering, be sure to specify the correct pipe shank.

Pressed Steel Grease Cups

Strong and well made. Suitable anywhere where brass is not required.

81E1960
Net Prices and Capacity

Size	Inside Diam.	Pipe Thread	Cap., Oz.	Price, Each	Price, Doz.
1000	3/4"	1/8"	1/4	\$0.05	\$0.50
100	1"	1/8"	1/2	.06	.60
10	1 1/4"	1/8"	3/4	.08	.80
11	1 1/2"	1/8"	1	.10	1.00
12	2"	1/8"	2	.15	1.50
13	2 1/2"	1/8"	3 1/2	.20	2.00
14	3"	1/8"	5	.30	3.00



Glass Body Oil Cups

With Sight Feed, Set Feed and Stop Feed

When lever is in horizontal position, the feed is entirely shut off; when upright, the oil is fed at the regular rate per minute; and when at an angle of 45 degrees, the oil will feed out in a stream.

81E1966 Net Prices

Number	1	1 1/2	2
Outside diam., Glass.....	1 1/2"	1 3/4"	2
Height Glass.....	1 3/8"	1 5/8"	1 7/8"
Capacity, ounces.....	1	1 1/2	2 1/2
Shank, Pipe Thread.....	1/4"	3/8"	1/2"
Price, each.....	.85	\$0.90	\$1.00

Number	3	4	5
Outside diam., Glass.....	2 1/4"	2 1/2"	3 1/2"
Height Glass.....	2 1/8"	2 3/8"	3
Capacity, ounces.....	4	5	10
Shank, Pipe Thread.....	3/8"	1/2"	1 1/2"
Price, each.....	1.20	1.30	1.65

For Glasses and Gaskets, See 81E1964

Plain Brass Cylinder Lubricator

Brass Finish Steam Chest Oilers. Please Note—information below for the correct size pipe thread when ordering.

81E1968
Net Price, Each

Size	Diameter Inches	Pipe Thread	Price, Each
80	1	3/8"	\$1.50
81	1 1/4	3/8"	1.65
82	1 1/2	3/8"	1.75
83	1 3/4	1/2"	1.85
84	2	1/2"	2.00
85	2 1/4	1/2"	2.35
86	2 1/2	1/2"	2.75
87	3	1/2"	3.50

CORRECT SIZE PIPE SHANKS For Various Size Holes.

Size Pipe Thread	Fits Size Hole
1/4 in.	1/8 in.
1/2 in.	1/4 in.
3/4 in.	3/8 in.
1 in.	1/2 in.

GUMP'S PACKING AND GASKETS

"Elco" Square Spiral Packing



A good medium pressure packing. A combination of cotton duck, graphite and rubber combining elasticity and good lubrication. Sizes $\frac{1}{4}$ to $\frac{3}{4}$ inch. Boxes contain 12 lineal feet

81E1830 Net Prices Per Box	
$\frac{1}{4}$ -inch Size..\$0.40	$\frac{1}{2}$ -inch Size..\$1.00
$\frac{3}{8}$ -inch Size.. .60	$\frac{5}{8}$ -inch Size.. 1.50
$\frac{1}{2}$ -inch Size..\$2.25	

We do not sell less than one box—other sizes furnished up to $1\frac{1}{2}$ inch. Prices on application.

"Geneva" Round Red Core Spiral Piston Rod and Valve Stem Packing



For rods and valve stems of marine and stationary engines, air compressors, steam pumps, etc., adapted for low or high pressure, and slow or high speed. Put up in boxes containing 12 lineal feet.

81E1842 Net Prices Per Box.	
$\frac{1}{4}$ -inch Size..\$0.60	$\frac{1}{2}$ -inch Size..\$2.50
$\frac{3}{8}$ -inch Size.. 1.00	$\frac{5}{8}$ -inch Size.. 5.00
$\frac{1}{2}$ -inch Size..\$6.00	

We do not sell less than one box—other sizes furnished up to $1\frac{1}{2}$ inch. Prices on application.

Elgin "Special" Valve Stem Packing



Is an Asbestos Packing impregnated with a special lubricant. It will not stick or harden, but will always allow the stem to move freely. Valve Stem Packing is put up in one-pound spools in $\frac{1}{8}$ -inch, $\frac{1}{4}$ -inch, $\frac{3}{8}$ -inch, $\frac{1}{2}$ -inch, $\frac{5}{8}$ -inch, $\frac{3}{4}$ -inch, $\frac{7}{8}$ -inch and 1-inch sizes.

81E1844	Price Net, per spool.....\$1.00
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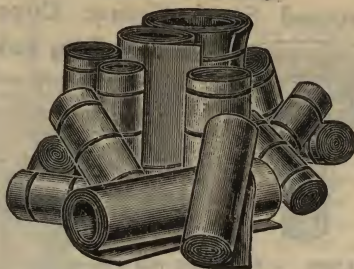
Hemp Packing



Put up in coils of 25 lbs. each. We do not sell less than 5 pounds.

81E1850	American "A" Grade. Price, per lb....\$0.30
81E1852	Italian "A" Grade. Price, per lb.....\$0.40

Sheet Packing



Cloth Insertion Sheet Packing

A superior quality of cloth inserted Sheeting. Made 36 inches wide, $\frac{1}{8}$ - $\frac{3}{32}$ - $\frac{1}{8}$ - $\frac{5}{32}$ - $\frac{1}{4}$ - $\frac{3}{4}$ inch in thickness.

81E1862	Net Price, per pound.....\$0.30
	All pieces are cut 36 inches wide.

Wire Insertion Asbestos Sheet Packing

Good for all purposes, including Gas Engines. Is not injured by heat, cannot vulcanize or burn out, guaranteed for superheated steam. Made in $\frac{1}{32}$ to $\frac{1}{8}$ inch sizes, 40 inches wide. All pieces are cut the width of the sheet, viz. 40 in.

$\frac{1}{32}$ in. weighs 4 lbs. to the square yard; $\frac{1}{16}$ in., 7 lbs.; $\frac{1}{8}$ in., 12 lbs.

81E1866	Net Price, per pound.....\$1.20
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"Elco" Red Sheet Packing

Can be used on either hot or cold joints equally well, will not harden, carbonize or split up. A very good packing for general purposes. Sizes $\frac{1}{8}$ to $\frac{1}{2}$ inch, 36 inches wide. All pieces are cut the width of the sheet, viz. 36 inches.

81E1864	Net Price, per pound.....\$0.35
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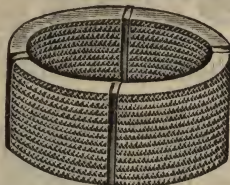
"Auto-Special" Motor Sheet Packing

Graphite on one side and red mineral compound on other side. A very superior Packing, made especially for Gas Engine use. In $\frac{1}{32}$ and $\frac{1}{16}$ thicknesses only. All pieces are cut the width of the sheet, viz. 40 in.

$\frac{1}{32}$ in. weighs $4\frac{1}{2}$ lbs. to the square yard; $\frac{1}{16}$ in., 7 lbs.

81E1868	Net Price (40 inches wide), per pound..\$1.20
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"Bestallic" Asbestos Folded Gaskets



For Man Holes, Hand Holes and Flange Joints.

Will stand any temperature and pressure of steam. May be re-used many times. We know of places where these gaskets have been in continual use for two years without renewal. Folded by hand and made of "German Asbestos Sheeting," which contains a fine composition wire. They have no raw edges.

Will cost less per day of service than any other gasket ever made.

Furnished in any size, shape or thickness. In ordering give inside diameters and width of flange.

81E1836 Net Prices	
For Hand Holes (4x6 and smaller). Per pound.....	\$1.25
For Man Holes (larger than 4x6). Per pound.....	\$1.20

"Clinton Special" Diagonal Expansion Packing



For Steam Pressures up to 250 lbs.; cold, warm or hot water; Air pumps, Valve Stems, etc.

81E1832 Net Price Per Foot	
$\frac{1}{4}$ -inch.....\$0.18	$\frac{3}{4}$ -inch.....\$0.65
$\frac{3}{8}$ -inch..... .30	$\frac{1}{2}$ -inch..... 1.00
$\frac{1}{2}$ -inch.....\$0.45	

Also furnished in boxes containing approximately $\frac{1}{4}$, $\frac{5}{16}$ lbs.; $\frac{3}{8}$, $\frac{6}{16}$ lbs.; $\frac{1}{2}$, $\frac{8}{16}$ lbs.; $\frac{3}{4}$, $\frac{12}{16}$ lbs.; $\frac{1}{2}$, 9 lbs.; at net, per b.....\$1.00

"Gumps" Square Hydraulic Packing



Made from fine duck and rubber friction. Is used for packing the Cylinders of hot water pumps. It will not swell while in use. Put up in coils containing 12 feet.

81E1878 Price Net Per Coil.	
$\frac{1}{4}$ -inch Sq....\$0.60	$\frac{3}{4}$ -inch Sq....\$1.50
$\frac{3}{8}$ -inch Sq.... .75	$\frac{1}{2}$ -inch Sq.... 1.75
$\frac{1}{2}$ -inch Sq....\$1.30	

This is for service where water is being pumped at about boiling point. Put up in coils containing 12 feet.

81E1880 Net Prices Per Coil.	
$\frac{1}{4}$ -inch Sq....\$0.85	$\frac{3}{4}$ -inch Sq....\$2.50
$\frac{3}{8}$ -inch Sq.... 1.10	$\frac{1}{2}$ -inch Sq.... 3.00
$\frac{1}{2}$ -inch Sq.... 1.60	

"Elco" Red Tubular Gaskets



For man holes, hand holes, etc. Lead connection and jointing tape furnished with each coil.

81E1858	Put up in coils containing 12 feet.
Size.....	$\frac{3}{8}$ in. $\frac{1}{2}$ in. $\frac{3}{4}$ in.
Net price, per coil.	\$0.85 \$1.40 \$2.50
Number feet in box	36 36 24 18
Net price per box.	\$2.25 \$3.75 \$4.50 \$4.50
Note—We do not sell less than one coil.	

Asbestos Wick Packing

Made of 6-ply Asbestos Yarn, $\frac{1}{8}$ " diameter. Put up in $\frac{1}{4}$, $\frac{1}{2}$ or 1 lb. Balls.

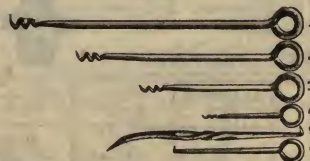
81E1870	Price, per lb.....\$0.75
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Lamp or Candle Wicking

Put up in sacks, containing 12 balls, weighing 5 pounds.

81E1872	Net Price, per pound.....\$0.50
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Packing Tools

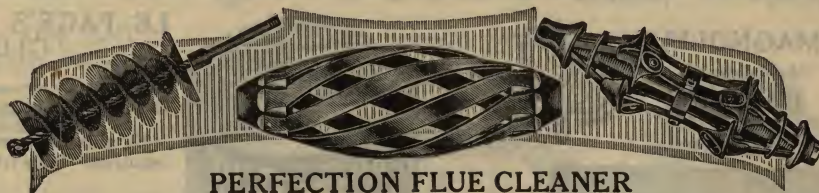


A Set consists of the following tools:—No. 1, 18"; No. 2, 14"; No. 3, 10"; No. 4, 6" corkscrew removing tool, No. 5, 12" Hook, one end, curve, other end; No. 6, 8" Single Hook.

81E1882	Net Price, per Set.....\$1.25
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Flue Cleaners, Hoists, Jacks and Pumps

Wire Flue
Cleaners
Flat Steel



Duplex
Flue
Cleaners

Double-Headed,
Double-Acting,
Adjustable,

PERFECTION FLUE CLEANER

Size given is Outside diameter of tube.

Light, strong and simple, knives, always sharp. Heads are Steel Drop Forgings. Cleans hot or cold flues, no screws or rivets, strongest cleaner made. Can be operated by a flexible handle, where space is limited.

Will send cleaners on trial to be returned at our expense if not found satisfactory.

Has tempered steel springs, perfectly elastic, can be contracted or expanded while in the tube.

Size given is Outside Diameter of tube.

81E2116

Outside Diam. Inches	Price Each	Outside Diam. Inches	Price Each
1 1/4	\$0.30	2 3/4	\$.80
1 1/2	.35	3	.90
1 3/4	.40	3 1/4	1.00
2	.50	3 1/2	1.10
2 1/4	.60	4	1.25
2 1/2	.70		

81E2118 Size given is Outside diameter of tube.

Outside Diam. Inches	Price Each	Outside Diam. Inches	Price Each	Outside Diam. Inches	Price Each
1 1/4	\$1.35	2 1/4	\$1.65	4	\$2.60
1 1/2	1.35	2 1/2	1.80	4 1/2	3.25
1 3/4	1.35	3	1.95	5	3.90
2	1.35	3 1/4	2.15		
2 1/4	1.50	3 1/2	2.30		

81E2120

Outside Diam. Inches	Price Each	Outside Diam. Inches	Price Each
1 1/4	\$1.20	3	\$1.80
1 1/2	1.20	3 1/4	1.95
2	1.20	3 1/2	2.10
2 1/4	1.35	3 3/4	2.25
2 1/2	1.50	4	2.40
2 3/4	1.65		



DIFFERENTIAL HOISTS

This is the simplest of all chain hoists, and where a hoist is required but occasionally and high speed and efficiency are not essential, it serves the purpose admirably.

This hoist is made with exceeding care and of the best material obtainable. It has drop-forged steel hooks and the very best grade of chain.

81E2016 Sizes and Net Prices

Cap. Tons	Reg. ft. Hoist	Net Wt. Pounds	Price Complete	Extra Hoist Per ft.
1/4	6	22	\$12.95	\$1.90
1/2	7	30	15.00	1.90
1	8	51	20.00	2.00
1 1/2	8 1/2	81	25.90	2.15
2	9	122	32.00	2.25
3	9 1/2	180	42.50	2.40



FORD TRIBLOC

Proved by test to be the best hoist on the market. Made entirely of steel; it lowers the load rapidly, smoothly, and holds it securely. Planetary steel gears, enclosed in dust proof steel cases, insure long life and ease in operation. Gears center around the main bearing with pressure perfectly balanced. Forged steel swivel hooks. A perfect hoist.

81E2024 Sizes and Net Prices

Cap. Tons	Reg. ft. Hoist	Net Wt. Pounds	Price Complete	Extra Hoist Per ft.
1 1/2	8	53	\$46.25	\$1.20
1	8	80	60.00	1.25
1 1/2	8	124	78.00	1.30
2	9	188	91.00	1.35
3	10	200	117.00	1.95

Larger sizes furnished. Prices on application.

"BARTH" JACKS

Double Action—Reversible
For Automobiles, Wagons, Tractors,
Thrashing Machines, etc.



All material is carefully selected and thoroughly tested. Nos. 1, 2, 3, 4 and 5, are constructed throughout of the highest grade of Malleable Iron, being exceedingly tough without being brittle. In Jack No. 6 the rack, upper and lower pawls are made of High Carbon Cast Steel.

No. 3 Jack is for automobiles. No. 2 is intended for a Wagon Jack.

Nos. 4, 5 and 6 for Traction Engines and Thrashers, Ditching Machines.

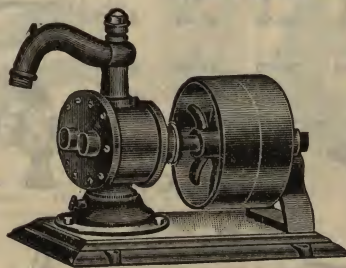
81E2018 Sizes and Net Prices

Size	Cap. Tons	Height Rack Down Inches	Rise Rack Inches	Wt. Lbs.	Net Price
2	1	14 1/2	11	9	\$ 3.50
3	1	10 1/2	7	6 1/2	2.95
4	3	14	8	20	6.35
5	6	18	11	33	9.25
6	10	20	12	68	20.00

ROTARY FORCE PUMPS

With Tight and Loose Pulleys

Will Draw Water 15 Feet and Elevate 100 Feet



Our Power Rotary Force Pump, on Iron frame is designed for the use of Mills, Oil Refineries, Distillers, Creameries, Brewers, Wine Producers, Varnish Makers, Meat Packers, etc., in fact, wherever water or other liquid must be rapidly elevated by power. This Pump can be used against a pressure of 40 pounds to the square inch, which renders it particularly useful for discharging into an elevated Tank, also as a Fire Pump for use about Mills, Factories, Warehouses, etc., where power is obtainable. It will throw water from 100 to 150 feet horizontally. In discharging to a Tank, the cap, as shown in cut on upward discharge, should be placed on the spout. For pumping acids, the Bronze Pumps should be used, and when intended for hot liquids, they should have Metallic Check Valve. Drip-cocks are provided to prevent freezing.

Speed, 100 to 200 R. P. M.

81E2226 SIZES, CAPACITIES AND NET PRICES

No.	Suction Fitted for Pipe	Discharge Fitted for Pipe	Size Pulleys	Discharges at 100 Rev. per Minute	Net Price, All Iron
1	1 1/4 inch	1 inch	7 x 2 1/2	11 gal.	\$14.45
2	1 1/4 inch	1 inch	7 x 2 1/2	15 gal.	16.00
3	1 1/2 inch	1 1/4 inch	7 x 2 1/2	20 gal.	18.65
4	2 inch	1 1/2 inch	11 x 3	25 gal.	33.85
5	2 inch	2 inch	11 x 3	36 gal.	38.00

These Pumps are fitted for Iron Pipe, but will be fitted for Lead Pipe or Hose when so ordered.

Price on Bronze Pumps on Application.

BABBITT METAL, LADLES, BELLOWS AND TOOLS



"MAGNOLIA"
(Anti-Friction)
**BABBITT
METAL**



The best anti-friction Babbitt Metal for bearings of all descriptions on High or Low Speed Machinery, Engines, Dynamos, Motors, etc. A non-cutting power-saving self-lubricant metal which will remedy complaints of hot boxes, worn journals and other troubles well known to the users of machinery and other accessories.

81E480 Price, per pound.....\$0.28

Special Prices on large quantities

Note—Put up in bars of about 7 pounds each.

ELCO BABBITT METAL

For all purposes where a good Metal of uniform quality is required.



This metal can be used for bearings of any description, dynamos, flour, planing and sawmills, agricultural machines, steam and gas engines, and, in fact, wherever good service, under general conditions, is required.

The ingredients of "ELCO" permit its use in place of genuine metals, as the amalgamation is perfect.

81E482 Net price, per pound.....\$0.20

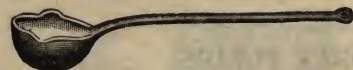
Note—Made in bars weighing about 5 pounds. We do not sell less than one bar.

81E484 Standard Brands

No. 1—Per pound.....\$0.10 | No. 4—Per pound.....\$0.07
No. 2—Per pound......08

Note—Made in bars weighing about 10 pounds. We do not sell less than one bar.

BABBITT MELTING LADLES



These ladles are drop forged of extra heavy mild steel and well coated in every respect.

81E496
Diameter, inches..... 2½ 3 3½ 4
Price, each.....\$0.35 \$0.40 \$0.45 \$0.50

Diameter, inches..... 5 6 7 8
Price, each.....\$0.60 \$0.70 \$2.00 \$2.75

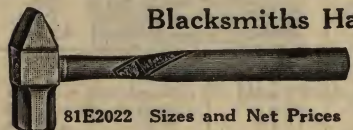
We can furnish genuine Babbitt and Solder. Prices on application.



HAND BELLOWS

For cleaning up around machines and various other purposes.

81E494 Price Each, Net
8 inch.....\$1.25
10 inch.....1.60
12 inch.....2.00



Blacksmiths Hammer

Extra Quality High Polish

81E2022 Sizes and Net Prices
Number..... 0 1 2 3
Weight.....1 lb. 10 oz. 2 lb 2 lb. 10 oz. 3 lb.
Price, Each.....\$0.85 \$0.95 \$1.00 \$1.10

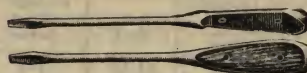


LE PAGE'S LIQUID GLUE

Always ready for use. For all kinds of woodwork, leather, paper, etc.

No glue pot needed, no cooking required. Once tried, always used.

81E486 Net Prices
Size of Cans Price per doz. Cans Price per Can
½ Pint.....\$ 4.50 \$0.45
1 Pint..... 7.00 .70
1 Quart..... 12.00 1.20

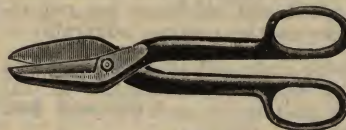


Perfect Handle Screw Drivers

A Solid One-Piece Drop Forging.

Oval shaped wood handle gives greater leverage, fits the hand better and is more comfortable than other shapes. Tempered correctly. Each carefully tested and fully warranted. Nothing better made.

81E2114 Sizes and Net Prices
Length of blade..... 4 5 6 8 10
Diameter of Blade..... ¼ ½ ¾ 1 1½
Price, each......30 .35 .40 .55 .75



TINNERS' SNIPS

Forged from Solid Steel

81E2082 Sizes and Net Prices

Size	Length, Ins.	Cut, Ins.	Weight Each, Lbs.	Price Each
10	10	2½	1	\$2.00
9	11¼	3	1½	2.25
8	13	3½	2	2.50

COLD CHISELS AND PUNCHES

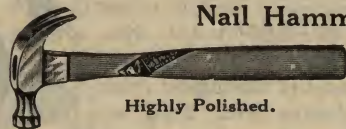
High Grade Guaranteed



81E2068 Chisels
½x6, each.....\$0.25
¾x6½, each......35
¾x7, each......45



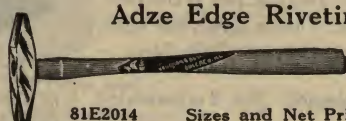
81E2070 Punches
½x8, each.....\$0.35
¾x9, each......45



Nail Hammers

Highly Polished.

The highest grade hammer made.
81E2010 Weight, ¾ lbs. Each.....\$1.25
81E2012 Weight, 1 lb. Each.....\$1.30

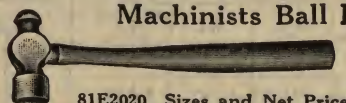


Adze Edge Riveting Hammers

Plain Eye, High Polish and Tempered, Blued.

81E2014 Sizes and Net Prices

Size	1	2	3	4
Weight, oz.....	7	9	12	15
Price, each.....	\$0.75	\$0.80	\$0.85	\$0.90



Machinists Ball Pein Hammers

Drop Forged best tool steel, well balanced and guaranteed in every way.

81E2020 Sizes and Net Prices
Size..... 00 0 1 2 3 4
Weight.....12 oz. 1 lb. 1½ lb. 1½ lb. 1½ lb. 2 lb.
Price, Each.....\$0.75 \$0.78 \$0.80 \$0.85 \$0.90 \$0.95

Wrenches, Pipe Cutters and Pipe Vises

"Bernis and Call" Combination Wrenches



With
Long
Nut

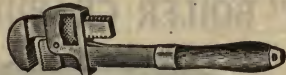
These wrenches combine all of the superior qualities of our Gas Pipe Wrenches and of a regular Nut Wrench, thus making a combination which has no equal.

Head steel-faced and steel jaw, with wrought iron bar, case-hardened throughout. Parts interchangeable.

81E2052 Sizes and Prices, Each

10 inch, for pipe $\frac{1}{4}$ to 1 inch.....	\$2.25
12 inch, for pipe $\frac{1}{2}$ to $1\frac{1}{4}$ inch.....	2.70
15 inch, for pipe $\frac{3}{4}$ to $2\frac{1}{4}$ inch.....	3.65

"Stillson's or 'Trimo'" Pipe Wrenches



We can furnish either Stillson's or Trimo wrenches at the same price. State which is wanted.

81E2056

Lgth. Open Ins.	Holds Pipe, Ins.	Price Each	Extra Parts, Each		
			Jaws	Frame	Nut
6	$\frac{1}{8}$ to $\frac{1}{2}$	\$0.80	\$0.35	\$0.18	\$0.10
8	$\frac{1}{8}$ to $\frac{3}{4}$	.90	.40	.20	.10
10	$\frac{1}{8}$ to 1	1.00	.45	.25	.10
14	$\frac{1}{4}$ to $1\frac{1}{2}$	1.40	.50	.30	.15
18	$\frac{1}{4}$ to 2	2.00	.75	.35	.20
24	$\frac{3}{4}$ to 2 $\frac{1}{2}$	2.90	1.00	.40	.30
36	$\frac{1}{2}$ to 3 $\frac{1}{2}$	5.40	1.85	.75	.50
48	1 to 5	8.00	3.25	1.00	.65

Machinist's Knife Handle Wrenches



This wrench is made for Mechanics' use from the best material obtainable, accurate fitted and every wrench guaranteed. Nothing better made.

81F2050 Forged Steel Bar.

6 inch, price each.....	\$0.75
8 inch, price each.....	.90
10 inch, price each.....	1.10
12 inch, price each.....	1.40
15 inch, price each.....	1.90
18 inch, price each.....	2.40
21 inch, price each.....	2.90

Adjustable "S" Wrenches



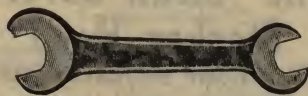
Made of
High Grade
Material
Throughout.

Excellent Construction.

81E2054 Price, Each

6-in., opens to $\frac{3}{4}$ ".....	\$0.65
8-in., opens to 1".....	.75
10-in., opens to $1\frac{1}{8}$ ".....	.95
12-in., opens to $1\frac{3}{8}$ ".....	1.45

Drop Forged Steel Wrenches



DOUBLE HEAD

Made from bar steel, forged in dies. The openings are milled out to fit the nuts designated and are always ready; no adjustment necessary, saves time. Made in two styles, as follows:

Unfinished—Is the natural steel with jaws milled to fit the nuts.

Semi-Finished—Hardened all over, heads polished bright and will stand the hardest kind of usage. Guaranteed against flaws or defects. Openings are at an angle of 15° .

Double Head—Engineer's Pattern. 81E2062

No.	Size Bolts, U. S. Std. Nuts	Ex- treme Length	Price, Un- finished	Price Semi- finished
23	$\frac{1}{4}$ and $\frac{1}{8}$	4	\$0.09	\$0.13
25	$\frac{1}{4}$ and $\frac{3}{8}$	4 $\frac{1}{2}$	.10	.15
26	$\frac{1}{4}$ and $\frac{3}{8}$	5 $\frac{1}{2}$	.12	.19
27	$\frac{1}{4}$ and $\frac{3}{8}$	5 $\frac{1}{2}$	.13	.19
28	$\frac{1}{4}$ and $\frac{3}{8}$	6 $\frac{1}{2}$	.15	.22
29	$\frac{1}{4}$ and $\frac{3}{8}$	6 $\frac{1}{2}$	.15	.22
30	$\frac{1}{4}$ and $\frac{3}{8}$	7 $\frac{1}{2}$	.18	.27
31	$\frac{1}{4}$ and $\frac{3}{8}$	7 $\frac{1}{2}$	.18	.27
32	$\frac{1}{4}$ and $\frac{3}{8}$	8 $\frac{1}{2}$	.22	.33
33	$\frac{1}{4}$ and $\frac{3}{8}$	8 $\frac{1}{2}$	.22	.33
34	$\frac{1}{4}$ and $\frac{3}{8}$	9 $\frac{1}{2}$	.28	.41
35	$\frac{1}{4}$ and $\frac{3}{8}$	9 $\frac{1}{2}$	.28	.41
36	$\frac{1}{4}$ and $\frac{3}{8}$	11 $\frac{1}{2}$	.40	.58
37	$\frac{1}{4}$ and $\frac{3}{8}$	11 $\frac{1}{2}$	.40	.58
38	$\frac{1}{4}$ and $\frac{3}{8}$	13 $\frac{1}{2}$	.60	.84
39	$\frac{1}{4}$ and $\frac{3}{8}$	13 $\frac{1}{2}$	.60	.84

General Purpose Wrench Sets



DOUBLE HEAD

In Sets of 5 Wrenches, Taking Nuts $\frac{1}{8}$ to $\frac{1}{2}$ inch. One Set in a Box.

81E2064

Unfinished, per set.....\$1.20

81E2066

Semi-Finished, per set.....1.65

Saunders' Pipe Cutters



(This Cutter has two rollers and one cutter wheel.)

Roller Cutters turn down burr made in cutting pipe and permit threading after cutting without further labor. Best quality material used in the construction of these cutters and are fully guaranteed.

81E2100 Sizes and Net Prices

Size	Cuts Inches	Price Each	Wheel Each	Rollers Each	Pins Each
1	$\frac{1}{8}$ to 1	\$1.65	\$0.15	\$0.15	\$0.10
2	1 to 2	2.50	.20	.20	.10
3	2 to 3	6.05	.36	.30	.15
4	2 $\frac{1}{2}$ to 4	9.90	.36	.30	.15
5	4 to 6	15.40	.36	.36	.15

"Barnes" Pipe Cutters



(This style has three Cutter Wheels)

Three Wheel Cutters cut more rapidly than other kinds and are especially adapted for use in cutting in corners and close places. Wheels and pins are of tool steel and carefully tempered.

81E2108

Size	Cuts Inches	Price, Each	Wheels, Each	Pins, Each
1	$\frac{1}{8}$ to 1	\$2.05	\$0.15	\$0.10
2	$\frac{1}{8}$ to 2	2.70	.15	.10
3	1 $\frac{1}{2}$ to 3	4.50	.20	.10
4	2 $\frac{1}{2}$ to 4	9.00	.25	.10
5	4 to 6	13.50	.40	.10

Open Hinge Pipe Vises

MALLEABLE IRON.

This vise has steel jaws and is constructed for heaviest work.

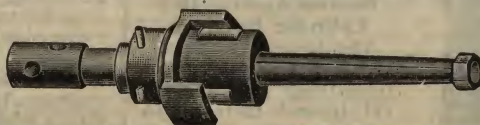


81E2102

No.	Holds Pipe	Weight Pounds	Price Each
1	$\frac{1}{8}$ to $2\frac{1}{2}$	13	\$3.00
2	$\frac{1}{4}$ to $3\frac{1}{2}$	16	4.50
3	$\frac{1}{2}$ to $4\frac{1}{2}$	21	6.60

Roller Tube Expander

Dudgeon Pattern
Size given is outside
diameter of tube.



81E2112

SIZES AND NET PRICES.

Outside Diameter Inches	Price Each	Outside Diameter Inches	Price Each	Outside Diameter Inches	Price Each
$1\frac{1}{4}$	\$4.00	2	\$4.00	3	\$7.20
$1\frac{1}{2}$	4.00	$2\frac{1}{4}$	4.80	$3\frac{1}{2}$	9.20
$1\frac{3}{4}$	4.00	$2\frac{3}{4}$	5.60	4	12.00
$1\frac{7}{8}$	4.00	$2\frac{7}{8}$	6.40	5	20.00

Stacker Hoods, Webs and Supplies

The "Straw Saver" Stacker Hood

Has Four Adjustments

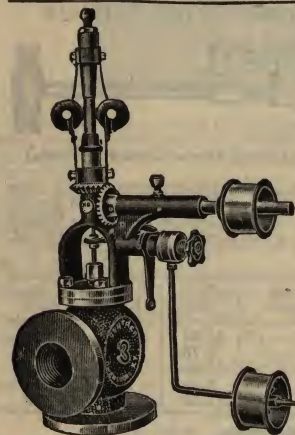
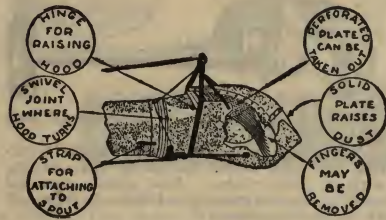
This Stacker Hood is adaptable to any make or size of wind stacker and will handle the straw in any condition, long or short, wet or dry, without choking the blower and allowing it to run at full capacity.

All parts of the hood can be removed and the operator can quickly adjust it to fit every requirement.

The FINGERS catch the straw as it comes from the spout and it drops gently on the stack. The PERFORATED PLATE catches the short straw and chaff and drops it with the long straw on the stack but allows the dirt, smut and rust to pass through the holes in the plate where the solid plate throws it over the back of the stack where it does not become mixed with the straw in the stack.

There is no forced blast coming onto the stack as is the case with a solid hood as the blast and dust goes through the perforated plate. ALL THE STRAW IS CLEAN AND THE FULL FEEDING VALUE IS RETAINED. Made to fit all sizes of stacker spouts.

81E3050 Price, each.....(In ordering state diameter of stacker spout).....\$27.00



Gunther Governors

For Throttling Steam Engines and Gas Engines

Gunther Governors are high speed, hence very sensitive and close regulation is obtained. The bearings are long and require very little power to drive them, which renders them very durable.

The gears are cut from solid metal and run noiseless. Speeder parts are enclosed and not exposed to dust and dirt. Safety stop is very simple. Has less wearing parts, wider variation of speed, and more adjustment (in or out) of pulley on shaft, than any other make.

The workmanship, material and design is the best throughout.

81E3020

SIZES AND NET PRICES

Diam. of opening, inches	1	1 1/4	1 1/2	2	2 1/2	3
Diam. of Base Flange inches	Screw	Screw	5 1/2	7	8	9
Diam. of Side Flange inches	Screw	Screw	Screw	Screw	7	8
Extreme Height, inches	19	19 1/4	24	28	29 1/2	33
Diam. of Pulley, inches	2	2	2 1/2	3	3	3 1/2
Width of Belt, inches	1 1/2	1 1/2	1 1/2	2	2	2
Speed, R. P. M.	550	550	550	500	500	400
Weight, boxed, pounds	26	28	42	75	85	110
Net Price, without Automatic Stop each	\$19.80	\$23.00	\$25.00	\$33.00	\$44.00	\$55.00
Net Price with Automatic Stop each	\$23.00	\$26.95	\$29.50	\$36.00	\$48.00	\$59.00

"OILRIGHT" LUBRICATOR

Insures Against Hot Cylinder Bearings

Can be set in any position and any number of tubes may be attached. Oil filtered and fed to bearings thru a sight feed dripper. Oil can be regulated to suit operator and

turned off when separator in not in use. Tank holds two gallons. Furnished complete with brackets, ten feet soft iron pipe and two sight feeds. GUARANTEED AGAINST ALL DEFECTS FOR 1 YEAR.

81E3056 Net Price Complete.....\$7.25
81E3058 Extra sight feeds, each.....2.00



"MEXICAN" BOILER GRAPHITE

A pure very finely powdered graphite which circulates through the boiler and attacks, softens and disintegrates the old scale so that it may easily be removed. Imparts a graphitic finish or polish to the steel on which scale will not readily form and if it should, THE SCALE WILL BE SOFT AND EASILY CLEANED.

This is all done without damage to the boiler itself as it will not attack the steel of the boiler. Mexican Boiler Graphite is effective in any feed water regardless of the character (saving the trouble of frequent analysis) and it will not cause "foaming". Under normal conditions it cannot pass from the boiler with the steam which would render it unfit for industrial use.

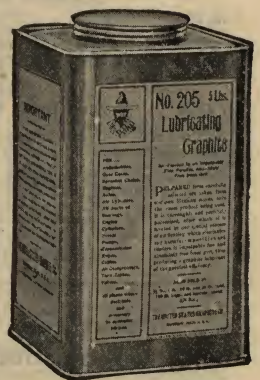
81E3060 In 50 lb. kegs. Price, each, net.. \$ 8.00
81E3062 In 100 lb. kegs. Price, each, net.. 12.80



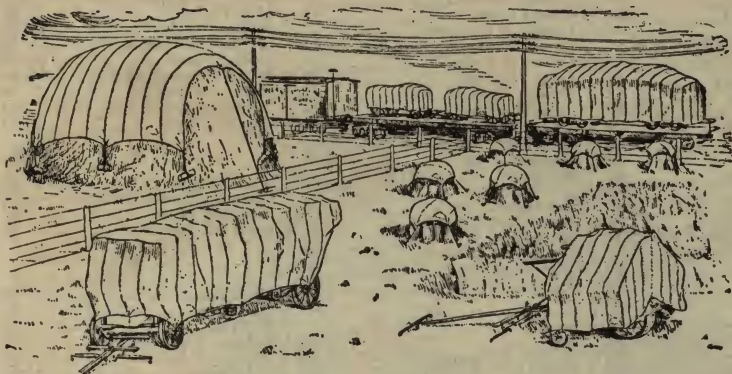
"MEXICAN" LUBRICATING GRAPHITE

An air-floating powder of impalpable fineness, absolutely gritless. Best lubricating graphite known. Unequalled for hot pins, hot boxes, etc. Minimizes carbonization and increases compression in gas engines. Will reduce oil and grease consumption. Mix one teaspoonful to pint of oil and two teaspoonfuls to pound of grease. May be introduced into gas engine cylinders by holding about half teaspoonful at air intake while running. May also be mixed with oil and used as a preservative paint for smoke stacks, boiler fronts, etc., or as a joint compound for pipes and gaskets.

81E3070 In 1 lb. cans, each, net.....\$0.40
81E3072 In 5 lb. cans, each, net.....1.90
81E3074 In 10 lb. cans, each, net.....3.50
81E3076 In 25 lb. cans, each, net.....8.00



CANVAS COVERS AND "CLOSZ" SIEVES



CANVAS COVERS

Complete With Ropes and Grommets.

The very best quality canvas duck made from the highest grade long staple cotton, is used in both, the ELCO and STERLING grade covers. The quality of both grades is the very best, the only difference being in the weight of the duck. ELCO grade weights are based on duck which measures 29 inches wide to the yard while STERLING grade weights are based on duck, measuring 36 inches wide to the yard.

STERLING GRADE COVERS

81E2700

SIZES AND NET PRICES

Size Feet	10 oz. Sgl. Filling			12 oz. Duck		
	Price Each	Approx. Weight Lbs.	Single Filling Price	Double Filling Price	Army Price	Approx. Weight Lbs.
5 x 7	\$1.20	2½	\$1.53	\$1.73	\$1.93	3
5 x 9	1.53	3	1.93	2.13	2.47	4
7 x 12	3.07	6	3.60	4.20	4.80	7½
7 x 15	3.80	7½	4.67	5.20	5.93	9½
9½ x 16	5.40	11	6.47	7.47	8.47	13½
9½ x 18	6.07	12	7.40	8.33	9.47	15
12 x 16	6.73	13½	8.27	9.33	10.20	17
12 x 20	8.40	17	10.33	11.60	13.20	21
14 x 16	8.07	16	9.87	11.13	12.67	20
14 x 20	10.07	20	12.27	13.87	15.80	25
14 x 24	12.00	24	14.67	16.53	18.87	30
16 x 20	11.73	23½	14.40	16.20	18.47	29
16 x 24	14.07	28	17.20	19.33	22.00	35
16 x 30	17.87	35	21.87	24.60	28.07	44
18 x 24	16.00	32	19.53	22.00	25.13	40
18 x 30	20.13	40	24.53	27.67	31.60	50
19 x 28	19.13	38	23.33	26.27	30.00	47½
19 x 35	24.33	48	29.67	33.40	38.13	60
24 x 30	26.20	50	32.00	36.13	47.13	65
24 x 35	30.40	60	37.20	41.81	47.73	75
24 x 40	34.33	68	42.00	47.20	53.80	85

ELCO GRADE COVERS

81E2702

SIZES AND NET PRICES

Size Feet	10 oz. Sgl. Filling			12 oz. Duck		
	Price Each	Approx. Weight Lbs.	Single Filling Price	Double Filling Price	Army Price	Approx. Weight Lbs.
5 x 7	\$1.53	3	\$1.80	\$2.07	\$2.33	3½
5 x 9	1.93	4	2.20	2.60	3.00	4½
7 x 12	3.73	7½	4.40	5.20	5.93	9
7 x 15	4.60	9½	5.47	6.47	7.40	11½
9½ x 16	6.60	13½	7.80	9.32	10.53	16
9½ x 18	7.40	15	8.73	10.27	11.73	18
12 x 16	8.27	17	9.73	11.53	13.07	20
12 x 20	10.27	21	12.25	14.27	16.33	25
14 x 16	9.87	20	11.67	13.73	15.73	24
14 x 20	12.27	25	14.47	17.13	19.53	30
14 x 24	14.67	30	17.33	20.47	23.33	36
16 x 20	14.33	29	16.93	20.07	22.87	35
16 x 24	17.13	35	20.20	23.87	27.27	42
16 x 30	21.80	44	25.80	30.47	34.73	53
18 x 24	19.53	40	23.07	27.27	31.07	47
18 x 30	24.53	50	28.93	34.20	39.13	60
19 x 28	23.33	49	27.53	32.53	37.13	57
19 x 35	29.60	60	34.93	41.33	47.13	71
24 x 30	32.00	65	37.73	44.67	50.93	78
24 x 35	37.07	75	43.80	52.07	59.07	90
24 x 40	41.80	85	52.07	58.47	66.60	102

No. 6 SEAMLESS DUCK WATERPROOF WAGON COVERS

A very high grade seamless waterproof wagon cover, suitable for Wagons, Engines, Separators, etc. Guaranteed to be made of the best material and unexcelled in workmanship. Complete with tie ropes. (No. 6 duck equal to 18-ounce double filling.)

81E2706

NET PRICES

6 x 10 Feet; Weight 9	Pounds, Each	\$4.67
6 x 12 Feet; Weight 10½	Pounds, Each	5.60
6 x 14 Feet; Weight 12	Pounds, Each	6.53
6 x 16 Feet; Weight 13½	Pounds, Each	7.47
7 x 12 Feet; Weight 12½	Pounds, Each	6.93
7 x 14 Feet; Weight 14½	Pounds, Each	8.13
7 x 16 Feet; Weight 16½	Pounds, Each	9.33
8 x 12 Feet; Weight 14	Pounds, Each	7.80
8 x 14 Feet; Weight 16	Pounds, Each	9.20
8 x 16 Feet; Weight 19	Pounds, Each	10.40
8 x 18 Feet; Weight 21	Pounds, Each	11.60



"CLOSZ" ADJUSTABLE SIEVE

Is so designed and constructed that it will save and separate all of the different kinds of grain and seeds under all conditions in a most thorough and satisfactory manner. Its surface construction is such that continuous channels and rows of meshes are formed, over which all the material to be separated is continually exposed to the wind blast, through the chaffer, and the elevated ridges or fingers hold the material in such a manner that a quick and positive separation of the chaff and coarse matter from the grain is easily accomplished. The elevated surface also produces a positive conveying action and clogging or filling up of the meshes is impossible. The action of the wind blast through the meshes of the chaffer is changed automatically (by opening and closing the meshes) to suit the size of the mesh, or the condition of the material to be used. In ordering, give length and width in inches. Length means lengthwise of machine. Also be sure and give make of machine, width of cylinder and width of separator.

81E2708

SIZES AND NET PRICES

For 24-Inch Separators	\$13.50	For 50, 52 and 54-Inch Separators	\$18.00
For 30-Inch Separators	15.50	For 56 and 58-Inch Separators	18.50
For 36-Inch Separators	16.00	For 60, 62 and 64-Inch Separators	19.50
For 40, 44, 46, 48-Inch Separators	17.00	For 70 and 72-Inch Separators	20.50

All Adjustable Sieves over 52 inches long are charged at \$2.00 additional.

CHAFFERS QUOTED ON APPLICATION.



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